

20030102.qrp v02_n788.qrl.20030102

Date: Thu, 2 Jan 2003 19:03:13 EST
From: qrp-l@Lehigh.EDU
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: QRP-L digest 2788

QRP-L Digest 2788

Topics covered in this issue include:

- 1) [143770] Re: Trevor's DDS Parts request
by "Trevor Jacobs" <kg6cyn@earthlink.net>
- 2) [143771] Rock- Mite Q6 Alternatives
by rsstone@juno.com
- 3) [143772] FS Tentec 263 Remote VFO
by "Dennis Brickey" <n4dd@preferred.com>
- 4) [143773] Re: Most Expensive Ham License :-)
by Robert Honan <robertus@harbornet.com>
- 5) [143774] Re: Most Expensive Ham License :-)
by Thom LaCosta <baltimoremd@baltimoremd.com>
- 6) [143775] Re: Most Expensive Ham License :-)
by JD Delancy <W1JD@drix.net>
- 7) [143776] Re: ARRL Evil Empire
by KD5NWA <KD5NWA@cbayona.com>
- 8) [143777] Simple K2 RX mod handles extremely strong on-frequency signals
by Wayne Burdick <n6kr@elecraft.com>
- 9) [143778] RE: soldering station
by "Robert Moore" <kv1v@earthlink.net>
- 10) [143779] [OT] You've Got ... QSLs! Part 1 (long)
by Brian Short <bshort4@cox.net>
- 11) [143780] Re: soldering station
by "res075cz" <res075cz@gte.net>
- 12) [143781] Re: [OT] You've Got ... QSLs! Part 1 (long)
by Bob Nielsen <nielsen@oz.net>
- 13) [143782] Status of MiniBoots Amp Kits
by "Doug Hendricks" <ki6ds@dospalos.org>
- 14) [143783] Re: Status of MiniBoots Amp Kits
by "Jerry Ford" <benlightnd13@mchsi.com>
- 15) [143784] RE: 40 and 30 meters QRP tonight
by "Prof. Arnaldo Coro Antich" <inforhc@ip.etecsa.cu>
- 16) [143785] Re: QRP-L digest 2787
by Paul Oakes <pro@glassaxis.org>
- 17) [143786] Re: soldering station
by "brian" <brian@iquest.net>
- 18) [143787] Re: [OT] You've Got ... QSLs! Part 1 (long)
by Bill ROWLETT <kc4atu@yahoo.com>
- 19) [143788] telescoping poles

- by Bill ROWLETT <kc4atu@yahoo.com>
- 20) [143789] January Spartan Sprint Announcement
by "John Huffman" <hjohnc@core.com>
- 21) [143790] TLB . . . Re: What's this on 12586 kHz
by John R Kirby <n3aaz-qrp@juno.com>
- 22) [143791] Re: [OT] You've Got ... QSLs! Part 1 (long)
by "Bill, N4QA" <n4qa@hotmail.com>
- 23) [143792] Re: Rule of Thumb on antenna's
by Bill Coleman <aa4lr@arrl.net>
- 24) [143793] Re: Rule of Thumb on antenna's
by "Karl F. Larsen" <k5di@zianet.com>
- 25) [143794] Re: soldering station
by "Tom Curtola" <tcurtola@rogers.com>
- 26) [143795] Re: soldering station [Solomon Model SR-976]
by Chuck Carpenter <w5usj@9plus.net>
- 27) [143796] Re: soldering station
by Jimmy Lee <jrlaudio@bellsouth.net>
- 28) [143797] Re: soldering station
by "Leigh Hawkes" <leighhawkes@ns.sympatico.ca>
- 29) [143798] Antenna question
by Scott Galloway <scott@defiant.mcgeorgecarco.com>
- 30) [143799] Re: Antenna question
by "Chris Trask" <chistrask@earthlink.net>
- 31) [143800] Re: Antenna question
by "Paul Mills" <quahog@localnet.com>
- 32) [143801] UPDATED: the "Rock-Mite" files
by "Rod N0RC" <rod@n0rc.us>
- 33) [143802] Re: Status of MiniBoots Amp Kits
by Bruce Rattray <rattray@gpfn.sk.ca>
- 34) [143803] Re: Antenna question
by "Karl F. Larsen" <k5di@zianet.com>
- 35) [143804] Re: OT:Compressing ARRL Acrobat files
by "laura halliday" <marsgal42@hotmail.com>
- 36) [143805] KG6CYN DDS kit group component buy?
by "P. Ermisch" <ermisch@usa.net>
- 37) [143806] OT (partially): Palm PDA, Logging & Serial CW Sender
by "vze4jt6u" <vze4jt6u@verizon.net>
- 38) [143807] Baluns: homebrew vs commercial
by Gary Slagel <gdslagel@yahoo.com>
- 39) [143808] Re: Baluns: homebrew vs commercial
by "w8diz" <w8diz@fpqrp.com>
- 40) [143809] Re: OT (partially): Palm PDA, Logging & Serial CW Sender
by "Mike WA8BXN" <hubby2k@hotmail.com>
- 41) [143810] Re: Source for 102" steel whips(?) Thanks!
by "William Phinizy" <k6whp@verizon.net>
- 42) [143811] Need part for Norcal paddles
by "Hugo W. Catta" <hugo@optonline.net>
- 43) [143812] HTX-10 Update..and unclear on the concept.

by "William Phinizy" <k6whp@verizon.net>
44) [143813] Re: Baluns: homebrew vs commercial
by "Karl F. Larsen" <k5di@zianet.com>
45) [143814] streight key recomendation needed
by Gary Lee <kb9zuv@arrl.net>
46) [143815] I'm baaaaaak
by "N4LGH" <n4lgh@waveguide.us>
47) [143816] Re: Antenna question
by "Bob Tellefsen" <n6wg@earthlink.net>
48) [143817] Re: OT:Compressing ARRL Acrobat files
by Robert Honan <robertus@harbornet.com>
49) [143818] More Baluns: homebrew vs commercial
by Gary Slagel <gdslagel@yahoo.com>
50) [143819] Re: OT (partially): Palm PDA, Logging
by "Dave Ek" <ekdave@earthlink.net>
51) [143820] Re: OT:Creating (was Compressing) ARRL Acrobat files
by "Dave Ek" <ekdave@earthlink.net>
52) [143821] Re: streight key recomendation needed
by Garey Barrell <k4oah@mindspring.com>
53) [143822] Need help understanding resistor arrays....
by k4vib@att.net
54) [143823] Re: Status of MiniBoots Amp Kits
by J38AL@aol.com
55) [143824] [OT] You've Got ... QSLs (Part 2) or QSL Via Buro (long)
by Brian Short <bshort4@cox.net>
56) [143825] Re: Need help understanding resistor arrays....
by Ingo Meyer DK3RED <dk3red@gmx.net>
57) [143826] Re: [OT] You've Got ... QSLs! Part 1 (long)
by Brian Short <bshort4@cox.net>
58) [143827] Re: Need help understanding resistor arrays....
by "William K. Harding" <k4ahk@ix.netcom.com>
59) [143828] Re: [OT] You've Got ... QSLs (Part 2) or QSL Via Buro (long)
by Bill ROWLETT <kc4atu@yahoo.com>
60) [143829] Re: streight key recomendation needed
by MIKE SOUHRADA <wb9iog@revealed.net>
61) [143830] Re: Need help understanding resistor arrays
by k4vib@att.net
62) [143831] Re: OT:Creating (was Compressing) ARRL Acrobat files
by "Dave Ek" <ekdave@earthlink.net>
63) [143832] Re: streight key recomendation needed
by Garey Barrell <k4oah@mindspring.com>
64) [143833] Class E design procedure
by "Ian Wilson" <ianmwilson@earthlink.net>
65) [143834] Re: streight key recomendation needed
by Steven Weber <kd1jv@moose.ncia.net>
66) [143835] Re: Need help understanding resistor arrays
by "Mike Yetsko" <myetsko@insydesw.com>
67) [143836] Re: Straight key recomendation needed

- by "Steve Lawrence" <Steve.Lawrence@ITWFEG.COM>
- 68) [143837] RE: Need help understanding resistor arrays....
by Karl Kanalz <kkanalz@gcecispc.com>
- 69) [143838] Re: Class E design procedure
by KD5NWA <KD5NWA@cbayona.com>
- 70) [143839] Last 100 SideKick Kits shipped to JayBob
by "Doug Hendricks" <ki6ds@dph.dpol.net>
- 71) [143840] GL in FOX Hunts tonite
by "Doc K0EVZ" <dock0evz@earthlink.net>
- 72) [143841] Obligatory Meetings?
by "N4LGH" <n4lgh@waveguide.us>
- 73) [143842] Re: Class E design procedure
by KD5NWA <KD5NWA@cbayona.com>
- 74) [143843] RE: Antenna question
by Nick Kennedy <nkennedy@tcainternet.com>
- 75) [143844] Re: streight key recomendation needed
by Tom Popovic <ki3r@yahoo.com>

Date: Wed, 1 Jan 2003 16:08:47 -0800
From: "Trevor Jacobs" <kg6cyn@earthlink.net>
To: "Low Power Amateur Radio Discussion" <grp-1@lehigh.edu>
Subject: [143770] Re: Trevor's DDS Parts request
Message-ID: <00b401c2b1f3\$1f5b6d90\$8c7479a5@etclink.net>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hi Gang,

I updated the web page today with PDF versions of the Parts List and Functional Description. Finally got ahold of a version of a PDF writer the worked from Excel!

Joe Hussey W8RIK sent me a picture of his assembled unit and it looks GREAT!!! Very professional looking job Joe! As soon as I get some other pics from you guys, I'll put up another web page of the pictures.

On the Parts, the only parts that come from Digi-Key that you can't buy in a quantity of 1 is the small SMD caps and resistors. You have to buy 10 of these. Now, the price for a set of resistors is \$2.28, so 10 times this is \$22.28. Now this is nowhere near the \$340.00 as stated earlier!!! Also, I've never had to order \$50 worth of stuff at Mini Circuits! The MMIC is about \$1.42 plus shpping, and yes they have a 10 piece minimum order, that's \$14.20 plus maybe a buck for shipping. Now \$15 is nowhere near \$50!!! Let's get the facts correct here guys before posting and putting everyone in a

panic!

Now with that said, I think that the if you guys want to save a few \$ and do a group buy of parts, that's a great idea. Personally I like having a few extra bits around to experiment with. I'd suggested the group buy to a few of you earlier and had said to post to the list if you wanted to organize this. I don't have the time or energy to kit up a bunch of parts, and this is why I did a PCB/CPU kit only. I'll leave this up to someone else.

I hope you guys are enjoying the kit. Have a Happy New Year! BTW I only had one QSO with the J-38 and FT-817 from the YL's last night with Peggy WB6LRV on 40 meters. My CW on a straight key is horrid and I didn't feel like putting someone through that again ;-). Plus the antenna setup was my MP-1 on the YL's balcony in Long Beach, CA so don't think I was getting out too well. It does very well on 10 through 20 though.

73's Trev KG6CYN

<http://home.earthlink.net/~kg6cyn>

<http://www.qsl.net/kg6cyn>

----- Original Message -----

From: "Bill, N4QA" <n4qa@hotmail.com>

To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>

Sent: Wednesday, January 01, 2003 8:30 AM

Subject: Re: Trevor's DDS Parts request

>

> Dave,

> Thanks for the heads up on the minimum parts count thing.

> I haven't gotten 'round to ordering my parts for Trev's DDS here yet.

> And, BTW Trev, is that parts list available in plain text or something?

> Can you believe it? Don't have Excel here...

> Anyway, I'd be interested in joining a group buy for the parts...

>

> 73.

> Bill, N4QA

> <http://www.qsl.net/n4qa/>

>

>

>

>

>

> -----
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> <http://clinic.mcafee.com/clinic/ibuy/campaign.asp?cid=3963>

>

>

Date: Thu, 2 Jan 2003 00:13:27 GMT
From: rsstone@juno.com
To: QRP-L@lehigh.edu
Subject: [143771] Rock- Mite Q6 Alternatives
Message-ID: <20030101.191329.24594.161847@wm9.nyc.unttd.com>

Hi - Has anyone tried using a 2SC799, 2N3553, 2N4401, 2N3904, or other common transistors? If so, how did it work out? So far, I've mostly seen reports on using a 2N3053 and multiple 2N2222As. Also, has anyone tried to tweak the output filter? Thanks for your help.

72,

Ron (KA3J)
Bethesda, MD

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Date: Wed, 1 Jan 2003 19:05:09 -0500
From: "Dennis Brickey" <n4dd@preferred.com>
To: <qrp-l@lehigh.edu>
Subject: [143772] FS Tentec 263 Remote VF0
Message-ID: <001701c2b1f2\$9e5b9800\$5bf9e4ce@computer>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Tentec 263 Remote VF0. Matches Corsair I but functional with Corsair II. The unit is near perfection in condition. Purchaser will not be disappointed. \$200 shipped lower 48

Date: Wed, 01 Jan 2003 16:53:44 -0800
From: Robert Honan <robertus@harbornet.com>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [143773] Re: Most Expensive Ham License :-)
Message-ID: <3E138D98.AA350FE6@harbornet.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

It also is an example of why Kevin has so many fans in the geek community. Many of his supporters, like myself, believe that while Kevin's actions were criminal and were deserving of jail time -- the treatment that he received was way out of proportion with the petty crimes he committed. Robert Hanssen gets life without parole for espionage and nobody at the FCC bothers about his ham license. I wonder if Kevin's fight for his license was the result of a call from one of his former persecutors... err, I mean prosecutors.

What some folks need to remember is that Kevin was not found guilty of the crimes he was charged with. He was held without bail for four and a half years awaiting trial and then offered a plea bargain for five years with credit for time served. People have committed armed robbery or murder and spent less time in jail.

Rob Matherly wrote:

> > Contraversial? Look up K9QVL, draw your own conclusions..
>
> The flag next to the name is a bit ironic....
>
> --
> 72/73/oo - Rob, w0jrm - w0jrm@arrl.net
> ARRL, FPQRP -330, SOC #497, QRPp-I #19, IAQRP #143,
> <http://www.qsl.net/w0jrm>

--

Robert J. Honan: ex WB7VGX, soon to be ex KD7QLJ

~~~~~  
There are 10 types of people in the world:  
those that understand binary, and those that don't.

-----

Date: Wed, 1 Jan 2003 20:20:54 -0500 (EST)  
From: Thom LaCosta <baltimoremd@baltimoremd.com>

To: David Hinerman <WD8CIV@worldnet.att.net>  
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [143774] Re: Most Expensive Ham License :-)  
Message-ID: <20030101201917.L94935-100000@unix1.vhost.min.net>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Wed, 1 Jan 2003, David Hinerman wrote:

>  
> > > Does anyone know of any prison or other 'detainment' system that  
> > > would allow inmates, even in halfway houses, to have access to  
> > > HAM gear?  
> >  
> > But if the inmate is a felon, then isn't it true that he can't have  
> > an FCC License (at least I thought that's what I was told here)?  
>  
> Thom,  
>  
> I've looked through the FCC rules on the ARRL web site, and I can find no  
> restriction on felons holding an Amateur license. The only restriction I  
> could find is that a representative of a foreign government cannot be licensed.

Thanks...my statements about the felony were based on another post that  
either stated or insinuated that a felon couldn't have an Amateur radio  
license.

Thom

|                                                                         |                                        |
|-------------------------------------------------------------------------|----------------------------------------|
| baltimoremd@baltimoremd.com                                             | Thom LaCosta K3HRN Webmaster           |
| <a href="http://www.baltimoremd.com/">http://www.baltimoremd.com/</a>   | Baltimore's Home Page                  |
| <a href="http://www.baltimorehon.com/">http://www.baltimorehon.com/</a> | Home of the Baltimore Lexicon          |
| <a href="http://www.zerobeat.net">http://www.zerobeat.net</a>           | Home of The QRP Web Ring and DrakeList |
| <a href="http://www.tlchost.net">http://www.tlchost.net</a>             | Web Hosting as low as \$3.49/month     |

-----  
Date: Wed, 01 Jan 2003 20:48:13 -0500  
From: JD Delancy <W1JD@drix.net>  
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [143775] Re: Most Expensive Ham License :-)  
Message-ID: <3E139A5D.4040206@drix.net>  
MIME-version: 1.0  
Content-type: text/plain; charset=us-ascii; format=flowed  
Content-transfer-encoding: 7BIT



> another post that either stated or insinuated that a felon couldn't have an  
> Amateur radio license.

Seems to me that that rule did exist at one time, at least think I remember it  
from  
the 60's. The FCC establishes rules and regulations, not laws which is a function  
of the Congress. So that "rule of no felons" may have been there once and could  
have been removed during a FCC review/rewrite of the Rules and Regulations.

Maybe next time someone gets to hear Riley K4ZDH, they can ask him.

Thom LaCosta wrote:

> On Wed, 1 Jan 2003, David Hinerman wrote:

>

>

>>>>Does anyone know of any prison or other 'detainment' system that  
>>>>would allow inmates, even in halfway houses, to have access to  
>>>>HAM gear?

>>>

>>>But if the inmate is a felon, then isn't it true that he can't have  
>>>an FCC License(at least I thought that's what I was told here)?

>>

>>Thom,

>>

>>I've looked though the FCC rules on the ARRL web site, and I can find no  
>>restriction on felons holding an Amateur license. The only restriction I  
>>could find is that a representative of a foreign government cannot be licensed.

>

>

> Thanks...my statements about the felony were based on another post that  
> either stated or insinuated that a felon couldn't have an Amateur radio  
> license.

>

>

> Thom

>

> baltimoremd@baltimoremd.com  
> <http://www.baltimoremd.com/>  
> <http://www.baltimorehon.com/>  
> <http://www.zerobeat.net>  
> <http://www.tlchost.net>

>

>

Thom LaCosta K3HRN Webmaster  
Baltimore's Home Page  
Home of the Baltimore Lexicon  
Home of The QRP Web Ring and DrakeList  
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-----

Date: Wed, 01 Jan 2003 19:52:38 -0600  
From: KD5NWA <KD5NWA@cbayona.com>  
To: stewart.bryant@virgin.net,  
"Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>  
Subject: [143776] Re: ARRL Evil Empire  
Message-ID: <5.2.0.9.0.20030101193532.00a9dcd8@pop.cbayona.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"; format=flowed

At 04:57 PM 1/1/2003, Stewart Bryant wrote:

>KD5NWA wrote:

>>So when the ARRL is trying to get 40 meters fully allocated worldwide for  
>>exclusive Ham use your not going to benefit?

>

>Any gain, if it comes, will be one achieved through international  
>co-operation, rather than from US dictate or sanction. As you might  
>expect I also belong to the RSGB, who are fighting for this on my  
>behalf as my representative in the IARU. Any gain will be  
>attributable to the IARU, and as I recall the IARU is not the same  
>as the ARRL.

Did I say the ARRL is doing it alone?, is the RSGB the same as the IARU?  
Neither is, but with the large number of hams in the US it helps to get  
things done, by which all benefit not just here. And who is dictating  
anything to anybody? Everyone does as they please until they need help.

>>Again when they fight the use orbiting mapping satellites that want to  
>>use the 70 cm band, because your not in the USA you think you are going  
>>to be immune from its effect? Nice try buddy!

>

>I have much greater problems with 70 cms being a shared band with MOD  
>as the primary user. Mutual interference with their radio systems is a  
>more immediate threat, particularly as spectrum pricing puts more  
>pressure on their allocations.

And satellites going overhead, using 70 CM on their radars isn't going to  
add to your problems? Please let me know what technology they are using  
over in your side of the pond to make you immune from it, it might come in  
handy.

>>The ARRL is such a nice target, if all the people that hate it so much  
>>would wake up one morning without that organization, they would find a  
>>lot of wolfs wanting our spectrum and nobody holding them back.

>

>I don't hate it, period. I just think it's business model is wrong

>for non-US members. As I said above, the only gain I get from being  
>an ARRL member is the publication service. Everything else I get from  
>the RSGB.  
>  
>>As I recall from history the taxation the colonies were getting was not a  
>>voluntary thing, I haven't heard of ARRL troops coming in to force anyone  
>>to pay taxes.  
>  
>But note that I pay more than you for membership of the ARRL, but unlike  
>you, get no vote, and no regional representation.

International mailing cost a lot more, doesn't it? Within the States  
literature mailing cost is very low, but the second it leaves the country,  
the US government has no say and the cost is much higher, they are  
probably loosing money on the deal, or at least not making much.

Do I have representation in the RSGB? Yet I wouldn't call them of no use  
to me, all organizations through International cooperation help hams in all  
countries, not one of them is "useless" and no one organization can get  
much done without the cooperation of the others.

>Stewart G3YSX

Cecil  
KD5NWA

-----  
Date: Wed, 01 Jan 2003 18:58:22 -0800  
From: Wayne Burdick <n6kr@elecraft.com>  
To: HF Pack <hfpack@yahoogroups.com>, qrp <qrp-1@lehigh.edu>,  
Elecraft <elecraft@mailman.qth.net>  
Cc: Bonnie Crystal <xtalradio@aol.com>  
Subject: [143777] Simple K2 RX mod handles extremely strong on-frequency signals  
Message-ID: <3E13AACD.2F5E85C0@elecraft.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Several recent HF Pack postings described K2 received audio distortion  
("Howling K2s") in the presence of nearby transmitters operating on the  
exact same frequency as the K2. ("Update on Stalking the Wild Howling K2" -  
WB6MLC and "Conclusion from the witness. (K2 Trouble - my \$.02 worth)" -  
K2CPE, WB6ZQZ and others.)

Over the past two days, we reproduced this in our lab and came up with a  
very simple modification that dramatically increases the K2's on-frequency

extreme signal-handling capability. The mod uses just two 1N4148 or 1N914 diodes; details appear below. We have modified five K2s as described, and they all worked perfectly.

In hindsight, we should have included the two diodes in the original design. The reason we didn't notice this sooner is that the test suite used by most RF labs, including ours and the ARRL's, does not include a test of extremely strong on-frequency signal handling. The K2 passes all of the usual dynamic range tests with flying colors, as has been well documented. But these tests all use weak signals *within* the K2's crystal filter passband; large signals are injected outside the passband (usually 5 to 20 kHz away). Those tests are looking for desensing of the receiver when strong off-frequency signals are present and for intermodulation products from strong off-frequency signals that produce on-frequency interference that masks desired weak signals. The K2 excels in these areas and tops most current rigs on the market.

Of course if we had been doing our share of HF Pack operation, we would also have discovered this problem sooner! Operating multiple rigs on the same frequency, all within walking distance of each other, was something that never occurred to us when we designed the K2 and released it in 1999, prior to the big upsurge in HFPacking that occurred in 2000. Thanks to all who did tests and let us know what was going on. We believe someone demonstrated the effect to Wayne at SeaPac 2002, and we apologize for not looking into it then.

#### Modification Details:

This applies to all K2s regardless of serial number.

1. Solder a 1N4148 or 1N914 diode (or equivalent) between pins 4 and 6 of the I.F. amp (U12, MC1350). The cathode (banded end) should go to pin 4. Do this on the bottom of the board using very short leads.
2. Solder a second diode of the same type between the same two pins, but with the banded end toward pin 6.

#### Results:

With the diodes in place, we've been able to transmit at 100 watts into an antenna just a few feet from the K2 (with its own antenna) with no apparent K2 receiver problems. In these tests the receiving antenna was non resonant. But at the lower power levels used for HF pack operation, there should be no problem even with resonant antennas operating in each other's near field. Fast and slow AGC still work normally.

#### Technical Details:

The MC1350 used in the K2 for receive automatic gain control (AGC) can handle up to about 2.5-3.0 V peak-to-peak at its input, pin 4. Beyond this, the AGC becomes ineffective, and the product detector can be overdriven. Normal on-air, on-frequency signals are generally under 200 mV at pin 4 of the I.F. amp, even at "S9 + 40 dB" as indicated on the K2's S-meter. But when you inject an extremely large signal from a nearby transmitter on the same frequency, the signal can go as high as 7 Vpp unless it is hard-limited.

The two diodes limit the signal to 1.4 V peak-to-peak. Even when the diodes are conducting, i.e. when the signal is so strong that it looks like a square wave at pin 4, there is no audible signal distortion. This is because the MC1350 is followed by a second crystal filter which removes any harmonic distortion products (i.e. multiples of 4.915 MHz). The diodes appear to have no other side-effects.

The modification provides a large increase in on-frequency dynamic range by acting as a clean limiter. Most commercial rigs use multiple I.F. amp stages to achieve this, but this adds a lot of complexity, adds significant IF noise and increases current drain, which is not compatible with the K2's intended use as a battery-powered field radio. It is also unnecessary; the K2's gain distribution is such that the diode limiter will never interfere with received signal quality.

If you make the modification, please let us know if it cures any observed audio anomalies as described earlier. If results are universally positive, we'll incorporate the mod into new K2 kits immediately.

73,  
Wayne, N6KR  
Eric, WA6HHQ

-----

<http://www.elecrafter.com>

-----

Date: Wed, 1 Jan 2003 21:50:17 -0500  
From: "Robert Moore" <kv1v@earthlink.net>  
To: "qrp-l" <qrp-l@lehigh.edu>  
Subject: [143778] RE: soldering station  
Message-ID: <410-2200314225017820@earthlink.net>  
MIME-Version: 1.0  
Content-type: text/plain; charset=US-ASCII

This is my favorite for the price, feel, tip life, and temperature. It's sold by Circuit Specialists (hidden inside Web-Tronics) and is made by Solomon.

See: <http://www.web-tronics.com/autsolirstat.html>

--- Bob Moore  
--- kv1v@earthlink.net

> [Original Message]  
> From: Lee Mairs <lmairs@direcway.com>  
> To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
> Date: 1/1/03 2:30:10 PM  
> Subject: soldering station  
>  
> It looks as tho my 25 year old Weller TCP bit the dust - just as I'm trying  
> to finish a RM for Saturday night. I'm about to try open heart surgery on  
> it, but figured I best get a replacement in the pipe line ASAP. Any  
> recommendations for what I should replace it (Weller, not the RM) with?  
> 73 de Lee  
> KM4YY  
>

-----  
Date: Wed, 1 Jan 2003 20:52:53 -0500  
From: Brian Short <bshort4@cox.net>  
To: Low Discussion <qrp-l@Lehigh.EDU>  
Subject: [143779] [OT] You've Got ... QSLs! Part 1 (long)  
Message-ID: <E7EE514E-1DF4-11D7-930A-00306543B616@cox.net>  
Mime-Version: 1.0 (Apple Message framework v551)  
Content-Type: text/plain; charset=US-ASCII; format=flowed  
Content-Transfer-Encoding: 7bit

You've Got ... QSLs!

I occasionally make somewhat casual entries in some amateur radio contests. Afterward, I usually receive a number of QSL cards from other hams with whom I made contact. Most of them would like a QSL card in return to use as an official confirmation of contact for an operating award of one type or another.

I like collecting QSL cards and I like receiving operating awards. I don't much like paperwork of any type.

There are a wide range of awards for which an amateur radio operator may apply. One highly regarded award is the DX Century Club and at the very top of that game the Honor Roll. These awards are based on making contact with foreign countries and territories carefully defined by the American Radio Relay League (ARRL).

Other ARRL awards are based on making contact with all 50 of the United States and of course providing evidence of such contact by submitting collected QSL cards. Variations on the Worked All States (WAS) award involve making all contacts on a particular frequency band or on all of the 5 traditional high frequency (HF) bands (80, 40, 20, 15, 10m), 5BWAS.

There are other awards. The ITU (International Telecommunication Union) sponsors the Worked All Continents (WAC) awards. CQ Magazine sponsors Worked All Zones (WAZ) awards. For those operating on VHF (very high frequency) and UHF (ultra high frequency) bands there are awards (like VUCC) for making contact with numerous Maidenhead Grid Squares. There are even awards for working US counties!

The common thread with all of these awards has been the use of QSL cards as proof of making the required contacts. They are the thing which has preserved the integrity of the awards over the years.

Today, we expect instant gratification and we mostly get it through the marvel that is the internet. Instant email from about anywhere in the world and instant access to documents on computers around the world is possible. We can even shop and have our favorite books delivered to our front doors overnight via Federal Express.

If commerce can be trusted to the internet, why not QSL cards? Why wait in line at the Post Office to buy air mail stamps and International Reply Coupons (IRCs)? Why risk unscrupulous postal authorities in Banana Republics stealing our "Green Stamps" before they reach the intended recipient?

So much for the wind-up, now for the pitch...  
End of Part 1 (Part 2 not written)

--

See my web page: <http://www.k7on.com>

-----  
Date: Wed, 1 Jan 2003 21:00:21 -0600  
From: "res075cz" <res075cz@gte.net>  
To: <qrp-1@lehigh.edu>  
Subject: [143780] Re: soldering station  
Message-ID: <073b01c2b20b\$1723c600\$0f972804@dslverizon.net>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

I have been using this same soldering iron for over a year and have built three Elecraft K1 rigs with it. It works great and gets the job done.

73 de Jim, K5ROV...

James (Jim) Parsons, K5ROV, CMSgt (E-9), USAF, Ret., San Angelo, TX  
Ham for over 60 yrs. 90% CW  
k5rov@arrl.net, QCWA, ARCI, Fists, ARRL, ARMS.  
EX: W1RLA, K5FBB, K4FEO, SV0WN (CRETE), SV0WN (RHODES),  
DL4NC, DL4JP, KA2FC (JAPAN), KA2JP (JAPAN).  
JOHN 3:16

----- Original Message -----

From: "Robert Moore" <kv1v@earthlink.net>  
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Sent: Wednesday, January 01, 2003 20:50 PM  
Subject: RE: soldering station

> This is my favorite for the price, feel, tip life, and temperature. It's  
> sold by Circuit Specialists (hidden inside Web-Tronics) and is made by  
> Solomon.

>  
> See: <http://www.web-tronics.com/autsolirstat.html>

>  
> --- Bob Moore  
> --- kv1v@earthlink.net

>  
>  
> > [Original Message]  
> > From: Lee Mairs <lmairs@direcway.com>  
> > To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
> > Date: 1/1/03 2:30:10 PM  
> > Subject: soldering station



> >  
> > It looks as tho my 25 year old Weller TCP bit the dust - just as I'm  
> trying  
> > to finish a RM for Saturday night. I'm about to try open heart surgery  
on  
> > it, but figured I best get a replacement in the pipe line ASAP. Any  
> > recommendations for what I should replace it (Weller, not the RM) with?  
> > 73 de Lee  
> > KM4YY  
> >  
>  
>

-----  
Date: Wed, 1 Jan 2003 19:16:55 -0800  
From: Bob Nielsen <nielsen@oz.net>  
To: Low Power Amateur Radio Discussion <qrp-1@lehigh.edu>  
Subject: [143781] Re: [OT] You've Got ... QSLs! Part 1 (long)  
Message-ID: <20030102031654.GA15722@n7xy.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Disposition: inline

Brian,

Good summary, however WAC is sponsored by the International Amateur  
Radio Union (IARU), not the ITU.

73,  
Bob, N7XY

-----  
Date: Wed, 1 Jan 2003 19:42:52 -0800  
From: "Doug Hendricks" <ki6ds@dospalos.org>  
To: "qrp-1" <qrp-1@lehigh.edu>  
Cc: "'Gentleman Jim Cates'" <wa6ger@aol.com>  
Subject: [143782] Status of MiniBoots Amp Kits  
Message-ID: <003501c2b211\$096690a0\$1fdbd7a8@DOUG>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Guys, the last week of October, we announced the NorCal MiniBoots Amplifier

kit, and started to take orders for the kits at that time. We thought we would be shipping kits in about 4 or 5 weeks. Well it has been 9 weeks now. All that we had to do was produce a PC Board layout, and that would be simple right? WRONG!!! The first layout included a trimpot (actually 2 of them) to set the level. Well, we layed out the board for a trimpot that was not robust enough to take the current that would be going through it, and we had a failure on one of the prototypes. So, we had to find another trimpot, test it, and then do a new layout, as it naturally did not fit the footprint of the old layout. Dave Fifield ran into some heavy work schedules, and we did not get the new layout done until the first week of December. By the time we got the prototype boards back from the board house and built and tested, we were into the holidays. The layout is ready to go to the board house now, but the board house shut down until Jan. 6th for the holidays. So, hopefully we will get into the queue soon. What this means is that we will probably not have a shipping date for the MiniBoots for another 3 or 4 weeks. Everyone involved regrets the delay, but we have to check every rev of the layout. The one time that we did not do that, we got to eat 500 VE3DNL boards that we did for the Fort Smith QRP Group. It was a simple board, only 7 parts, what could go wrong? Well, a ground got left off the IC, and that caused the boards to not work. Thus, by saving a few bucks up front, it wound up costing us 500 bad boards. We are committed to doing the amp right, and will not cut corners to ship and meet a deadline. I hope you understand where we are coming from. NorCal is not a company, and all of the work is done by volunteers. Yet, we have set a standard of excellence, and we intend to adhere to it. If you have ordered a Mini-Boots kit and would like a refund, we will be happy to send you your money. All that you have to do is send Jim Cates an email at wa6ger@aol.com and ask for it. But we hope that you will be patient with us. Thanks for your patience and support on this project. 72, Doug

-----  
Date: Thu, 2 Jan 2003 02:48:54 -0600  
From: "Jerry Ford" <benlightnd13@mchsi.com>  
To: <ki6ds@dospalos.org>  
Cc: "qrp-1" <qrp-1@Lehigh.EDU>  
Subject: [143783] Re: Status of MiniBoots Amp Kits  
Message-ID: <050901c2b23b\$c8f047c0\$6d74da0c@mchsi.com>

Dave: Keep up the good work man!

When you guys are satisfied with the amp the rest of us will be too.

Happy New Year

72 Jerry N0JRN

-----  
Date: Wed, 1 Jan 2003 23:12:39 -0400  
From: "Prof. Arnaldo Coro Antich" <inforhc@ip.etcscsa.cu>  
To: <qrp-L@LeHigh.edu>  
Subject: [143784] RE: 40 and 30 meters QRP tonight  
Message-ID: <013901c2b20c\$cf613080\$02000a0a@user>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Both 40 and 30 meters in rather  
good shape tonight for QRP work  
amigos !!!  
Will be hanging around 10.105 and  
10.116 on 30 meters , and  
near 7040 kHz on 40 meters  
QSL 100 percent assured !!!  
72 and DX  
Arnie Coro  
C02KK  
running 3 Watts on 40 meters  
and 2 Watts on 30 meters  
Antenna: Dipole fed with 110 ohm  
balanced line, balun and antenna tuner.

-----  
Date: Thu, 02 Jan 2003 01:46:26 -0500  
From: Paul Oakes <pro@glassaxis.org>  
To: qrp-l@Lehigh.EDU  
Subject: [143785] Re: QRP-L digest 2787  
Message-ID: <5.0.0.25.2.20030102014447.00b0d8e0@mail.glassaxis.org>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"; format=flowed

So Stewart, what representation / privileges can I expect if I join the  
RSGB from over here in the colonies?

-paul N8DTM

At 07:03 PM 1/1/2003 -0500, Stewart G3YSX wrote:  
>Subject: [143766] Re: ARRL Evil Empire  
>Message-ID: <3E137263.1060808@virgin.net>

>MIME-Version: 1.0  
>Content-Type: text/plain; charset=us-ascii; format=flowed  
>Content-Transfer-Encoding: 7bit  
>  
>  
>  
>  
>  
>But note that I pay more than you for membership of the ARRL, but unlike  
>you, get no vote, and no regional representation.  
>  
>Stewart G3YSX

-----  
Date: Thu, 2 Jan 2003 05:55:38 -0500  
From: "brian" <brian@iquest.net>  
To: <kv1v@earthlink.net>,  
    "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [143786] Re: soldering station  
Message-ID: <000c01c2b24d\$7d40f470\$0e64030a@bmurrey2K>  
MIME-Version: 1.0  
Content-Type: text/plain;  
    charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

I've been using the Solomon for about two years now and I am very  
satisfied with its operation. I bought it when the SMK-1 was being  
released. For the money, it's a good soldering station.

73

----- Original Message -----  
From: "Robert Moore" <kv1v@earthlink.net>  
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Sent: Wednesday, January 01, 2003 9:50 PM  
Subject: RE: soldering station

> This is my favorite for the price, feel, tip life, and temperature.  
It's  
> sold by Circuit Specialists (hidden inside Web-Tronics) and is made  
by  
> Solomon.

>  
> See: <http://www.web-tronics.com/autsolirstat.html>  
>  
> --- Bob Moore  
> --- kv1v@earthlink.net  
>  
>  
> > [Original Message]  
> > From: Lee Mairs <lmairs@direcway.com>  
> > To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
> > Date: 1/1/03 2:30:10 PM  
> > Subject: soldering station  
> >  
> > It looks as tho my 25 year old Weller TCP bit the dust - just as  
I'm  
> trying  
> > to finish a RM for Saturday night. I'm about to try open heart  
surgery on  
> > it, but figured I best get a replacement in the pipe line ASAP.  
Any  
> > recommendations for what I should replace it (Weller, not the RM)  
with?  
> > 73 de Lee  
> > KM4YY  
> >  
>  
>  
>  
>  
>

-----  
Date: Thu, 2 Jan 2003 03:16:50 -0800 (PST)  
From: Bill ROWLETT <kc4atu@yahoo.com>  
To: bshort4@cox.net,  
Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [143787] Re: [OT] You've Got ... QSLs! Part 1 (long)  
Message-ID: <20030102111650.42857.qmail@web14205.mail.yahoo.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii

Brian,

If your pitch is to have EQL accepted for awards,  
save your breath. The ARRL will never accept them.  
EQL last year went to a format which was secure, the

ARRL said no. Bottom line, they are removing the QSL altogether with their LOG BOOK OF THE WORLD. No cards, both stations upload their logs, the computer cross checks, credit given for their award.

Some organizations accept the EQSL card for there awards. One close to most of us is the QRPARCI.

73, Bill kc4atu

-----  
Do you Yahoo!?

Yahoo! Mail Plus - Powerful. Affordable. Sign up now.  
<http://mailplus.yahoo.com>

-----  
Date: Thu, 2 Jan 2003 03:53:14 -0800 (PST)  
From: Bill ROWLETT <kc4atu@yahoo.com>  
To: qrp-1@Lehigh.EDU  
Subject: [143788] telescoping poles  
Message-ID: <20030102115314.55802.qmail@web14202.mail.yahoo.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii

I am sure some of you are aware of this source, but some may not be. STEPPPIR Antennns have an 18ft. max. height pole for less then \$2.00 a foot. Rated to 100mph.

[www.steppir.com](http://www.steppir.com)

The usual disclaimers.

73 Bill kc4atu

-----  
Do you Yahoo!?

Yahoo! Mail Plus - Powerful. Affordable. Sign up now.  
<http://mailplus.yahoo.com>

-----  
Date: Thu, 2 Jan 2003 06:45:06 -0500  
From: "John Huffman" <hjohnc@core.com>

To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [143789] January Spartan Sprint Announcement  
Message-ID: <004301c2b255\$6a6910f0\$f0075dd8@jhuffman1t>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

-- Spartan Sprint Contest Monday --

A great start to the new year is Monday night's Spartan Sprint! The January Spartan Sprint will be held on January 6, 2003 (which is our standard date--the first Monday of the month). It's two hours of fun as you contact other QRP CW stations on 80, 40, 20, 15, 0r 10 meters. The contest starts at 9 pm Eastern, 8 pm Central, 7 pm Mountain, 6 pm Pacific. The exchange is RST - State - Power (e.g. 559 MI 5W). Contest details and rules are below.

NOTE - The deadline for logs is noon on Wednesday, Pacific Time.

-- Spartan Sprint Plug-In for Writelog --

Steve, N9OH, has written a plug-in for WriteLog to add ARS Spartan Sprint support. The module is free to all WriteLog users and can be downloaded from Steve's website: <http://wlmods.n9oh.com>

The module lets you do the regular stuff... logging, dupe checking, print summary sheets, dupe sheets, etc.... all of the things that WriteLog users are accustomed to doing with other contests.

-- Logging Program Updated For Improved Web Submission --

We've updated the free logging program for the Sprints. This version is far more reliable when it comes to web submission of your results. We'd urge all users to update to the new program. Download the latest version at: [http://www.natworld.com/ars/pages/spartan\\_sprints/ss\\_logger.html](http://www.natworld.com/ars/pages/spartan_sprints/ss_logger.html)

-- Contest Rule Summary --

You may operate on any one or more of five bands--80, 40, 20, 15, and 10 meters. Don't worry if your station is a bit heavy and not quite trail-ready. We commend the winners in two categories--overall points (the Tubby Division), and points per pound (the Skinny Division).

1. In the Eastern time zone, start at 9PM and end at 11PM, local time. In the Central time zone, start at 8PM and end at 10PM, local time. In the Mountain time zone, start at 7PM and end at 9PM, local time. In the Pacific time zone, start at 6PM and end at 8PM, local time. (When the U.S. is observing Standard Time, this slot is 0200 to 0400 UTC. When the U.S. is observing Daylight Time, this slot is 0100 to 0300 UTC.)

2. The frequencies will be 3560+- kHz, 7040 kHz+-, 14060 kHz+-, 21060 kHz+-, and 28060 kHz+-. (You may operate any number of bands--your choice.)

3. Exchange RST, SPC (state, province or country) and power output.
4. If you choose to call CQ, use the format "CQ SP," or "CQ QRP TEST."
5. You can take credit for working the same station on a second, third, or fourth band.

After the contest, we invite you to use our autolog, which is part of the ARS Sojourner. Just go to [www.natworld.com/ars](http://www.natworld.com/ars) and follow the link for "Direct access to autologs". Or you can speed things up by going directly to the Spartan Sprint autolog page at [www.natworld.com/ars/ss\\_log.html](http://www.natworld.com/ars/ss_log.html)

"Station Weight" is defined as the combined weight of all transmitters, receivers, keys, keyers and batteries used during the Sprint. We use decimal pounds, rather than pounds and ounces. You may report your weight to the nearest 10th of a pound, or, at your option, the nearest 100th of a pound. For stations weighing less than one pound, we recommend the nearest 100th of a pound.

If you don't have access to the web, send John Huffman, K8HJ, an email with your total QSOs and the total weight of your station. You may also include your comments from the soapbox. John's email address is [hjohnc@core.com](mailto:hjohnc@core.com)

We publish results for each Spartan Sprint on the Thursday following the Sprint. This may be the world's quickest contest reporting! Please send us your log as soon as possible, but in no event later than Wednesday at noon.

\*\*\*\*\*

73 de K8HJ  
John  
Contest Manager  
Adventure Radio Society

-----  
Date: Thu, 2 Jan 2003 07:14:38 -0500  
From: John R Kirby <[n3aaz-qrp@juno.com](mailto:n3aaz-qrp@juno.com)>  
To: [qrp-1@Lehigh.EDU](mailto:qrp-1@Lehigh.EDU)  
Subject: [143790] TLB . . . Re: What's this on 12586 kHz  
Message-ID: <20030102.071644.-239473.0.n3aaz-qrp@juno.com>  
MIME-Version: 1.0  
Content-Type: text/plain  
Content-Transfer-Encoding: 7bit

Must be a TLB (Tripple letter beacon).



SLB 7040 +/- (Hummmm??).

John  
N3AAZ 00TC 43+  
FM 19 xa

---

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Only \$9.95 per month!  
Visit [www.juno.com](http://www.juno.com)

-----  
Date: Thu, 02 Jan 2003 07:54:20 -0500  
From: "Bill, N4QA" <n4qa@hotmail.com>  
To: qrp-1@Lehigh.EDU  
Subject: [143791] Re: [OT] You've Got ... QSLs! Part 1 (long)  
Message-ID: <BAY1-F271ty0So2knDJ00000d72@hotmail.com>  
Mime-Version: 1.0  
Content-Type: text/plain; format=flowed

Brian,  
Anxiously awaiting Part Two...  
eQSL, it seems, is not for everyone.  
FWIW, eQSL IS for me.  
I believe that eQSL has made their service as reliable and easy-to-use as is necessary.  
I also believe that the tallest hurdle which eQSL has to cross is the NIH (Not Invented Here) attitude.

73.  
Bill, N4QA  
<http://www.qsl.net/n4qa/>

---

STOP MORE SPAM with the new MSN 8 and get 2 months FREE★  
<http://join.msn.com/?page=features/junkmail>

-----

Date: Thu, 2 Jan 2003 08:01:32 -0500  
From: Bill Coleman <aa4lr@arrl.net>  
To: <k5di@zianet.com>,  
"Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [143792] Re: Rule of Thumb on antenna's  
Message-ID: <20030102130320.LKGR12552.imf10bis.bellsouth.net@[192.168.0.20]>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="US-ASCII"

On 10/14/02 8:41 AM, Karl F. Larsen at k5di@zianet.com wrote:

> So we usually own many antenna's and some work great, and others  
>not so good. Here is my Rule of Thumb about antenna's: If it's less than  
>50% of a half wave long it will probably not work well. Before you jump  
>all over me saying a 1/4 wave vertical works fine, let me remind you  
>that a 1/4 wave vertical needs a serious ground plane to work at all  
>well and it works like a full 1/2 wavelength when it's done right.

Sorry to respond to so old a message.

Karl, I can think of one important exception to this "rule": the small loop.

This is an antenna with a high Q and small physical size. As a consequence, it also has a narrow SWR bandwidth.

Care must be taken to reduce losses due to the high circulating currents. The AEA IsoLoop is perhaps the most well-known of this type of antenna.

Bill Coleman, AA4LR, PP-ASEL                      Mail: aa4lr@arrl.net  
Quote: "Not within a thousand years will man ever fly!"  
      -- Wilbur Wright, 1901

-----  
Date: Thu, 2 Jan 2003 06:38:21 -0700 (MST)  
From: "Karl F. Larsen" <k5di@zianet.com>  
To: Bill Coleman <aa4lr@arrl.net>  
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [143793] Re: Rule of Thumb on antenna's  
Message-ID: <Pine.LNX.4.44.0301020624290.1292-100000@bucket.dog>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi Bill, well antenna stuff is always in our minds as QRP operators. I learned about QRP 4 years ago. Before that one antenna I built was a random wire about 60 feet long fed against the top of the tower with RG-8 coax. It worked on all bands and with 100 watts it got out pretty well.

Had I been a QRP operator I would have discovered the high loss and done it better.

As for exceptions to a Rule of Thumb, there will be many exceptions. But I say my Rule still applies since the loops and the miracle whips are not very efficient. Yet they work when conditions are very good.

The solar flux is now 115 and headed down. The band conditions of the next few years will force QRP operators to build good antenna's.

On Thu, 2 Jan 2003, Bill Coleman wrote:

```
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>
> > So we usually own many antenna's and some work great, and others
> >not so good. Here is my Rule of Thumb about antenna's: If it's less than
> >50% of a half wave long it will probably not work well. Before you jump
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> >that a 1/4 wave vertical needs a serious ground plane to work at all
> >well and it works like a full 1/2 wavelength when it's done right.
>
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>
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> loop.
>
> This is an antenna with a high Q and small physical size. As a
> consequence, it also has a narrow SWR bandwidth.
>
> Care must be taken to reduce losses due to the high circulating currents.
> The AEA IsoLoop is perhaps the most well-known of this type of antenna.
>
>
>
> Bill Coleman, AA4LR, PP-ASEL      Mail: aa4lr@arrl.net
> Quote: "Not within a thousand years will man ever fly!"
>      -- Wilbur Wright, 1901
>
>
```

--

- Karl Larsen k5di Las Cruces,NM Az ScQRPions -

-----  
Date: Thu, 2 Jan 2003 08:51:34 -0500  
From: "Tom Curtola" <tcurtola@rogers.com>  
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [143794] Re: soldering station  
Message-ID: <003b01c2b266\$1085aec0\$f44a9c18@bloor.phub.net.cable.rogers.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
                charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Yup, ordered one online over a year ago. Fast delivery, excellent temperature range and heats up fast. Turn it on and within 30 seconds, you're good to go Houston.

> This is my favorite for the price, feel, tip life, and temperature. It's  
> sold by Circuit Specialists (hidden inside Web-Tronics) and is made by  
> Solomon.  
>  
> See: <http://www.web-tronics.com/autsolirstat.html>  
>  
> --- Bob Moore  
> --- kv1v@earthlink.net

-----  
Date: Thu, 02 Jan 2003 08:26:57 -0600  
From: Chuck Carpenter <w5usj@9plus.net>  
To: qrp-1@lehigh.edu  
Subject: [143795] Re: soldering station [Solomon Model SR-976]  
Message-ID: <3.0.2.32.20030102082657.007dc9f0@mail.9plus.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Me Too on this one -- a couple of years ago after seeing posts on the list.

Ordered mine from Web-Tronics also.

Got extra tips too -- the small ones for soldering SMT parts

<http://www.web-tronics.com/soldering-equipment---supplies.html>

>Yup, ordered one online over a year ago. Fast delivery, excellent  
>temperature range and heats up fast. Turn it on and within 30 seconds,  
>you're good to go Houston.  
>  
>  
>> This is my favorite for the price, feel, tip life, and temperature. It's  
>> sold by Circuit Specialists (hidden inside Web-Tronics) and is made by  
>> Solomon.  
>>  
>> See: <http://www.web-tronics.com/autsolirstat.html>

Email Alt: w5usj@arrl.net

Chuck Carpenter, W5USJ, Point, Rains Co., TX - EM22cv, NETXQRP #1  
QRP-ARCI #5422, QRP-L #1306, QRPp-I #115, ARS #1280, SOC #57  
Zombie #759, COG #11, 6 Club #201, NETXQRP <http://www.netxqrp.org>

-----  
Date: Thu, 02 Jan 2003 09:28:57 -0500  
From: Jimmy Lee <jrllaudio@bellsouth.net>  
To: kv1v@earthlink.net  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [143796] Re: soldering station  
Message-ID: <3E144CA9.1398FFD7@bellsouth.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Yes and if your order is at least \$50.00 you get a \$29.95 meter free. I used  
both to build my K-2 and they worked FB.

Jimmy AE4DT  
K-2 #2832

Robert Moore wrote:

> This is my favorite for the price, feel, tip life, and temperature. It's  
> sold by Circuit Specialists (hidden inside Web-Tronics) and is made by  
> Solomon.  
>  
> See: <http://www.web-tronics.com/autsolirstat.html>  
>  
> --- Bob Moore  
> --- kv1v@earthlink.net  
>  
>> [Original Message]  
>> From: Lee Mairs <lmairs@direcway.com>

> > To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
> > Date: 1/1/03 2:30:10 PM  
> > Subject: soldering station  
> >  
> > It looks as tho my 25 year old Weller TCP bit the dust - just as I'm  
> trying  
> > to finish a RM for Saturday night. I'm about to try open heart surgery on  
> > it, but figured I best get a replacement in the pipe line ASAP. Any  
> > recommendations for what I should replace it (Weller, not the RM) with?  
> > 73 de Lee  
> > KM4YY  
> >

-----  
Date: Thu, 2 Jan 2003 10:31:58 -0400  
From: "Leigh Hawkes" <leighhawkes@ns.sympatico.ca>  
To: <qrp-1@Lehigh.EDU>  
Subject: [143797] Re: soldering station  
Message-ID: <000001c2b26b\$b7e46a80\$874d210a@leighck46i9ilt>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="us-ascii"  
Content-Transfer-Encoding: quoted-printable

The Weller TCP is a fine soldering station. Replacement parts are =  
readily  
available. The heater element eventually went in mine. I have the older  
WTCPN station. Heater element for it is p/n TC208. For the newer WTCP =  
series  
using the plug-in heater element, p/n is EC234. These stations are well  
worth repairing. 73, Leigh - VE1GA

-----  
Date: Thu, 2 Jan 2003 09:42:30 -0500  
From: Scott Galloway <scott@defiant.mcgeorgecarco.com>  
To: qrp-1@lehigh.edu  
Subject: [143798] Antenna question  
Message-ID: <200301021442.h02EgUHe022660@defiant.mcgeorgecarco.com>

I have put together a 40m dipole fed at center with 300 ohm ladder line. I want  
to

be able to work 40-10 with it at 5w or less. I am using the low-loss radio shack tv twin lead.

question- I don't have a 4:1 balun but was planning on running the twin lead straight to the tuner anyway. I cannot avoid the twin lead lying on the ground, it is going to enter the foundation of my house and up through the floor. I know I need to avoid metal objects but is this going to compromise the antenna? I also am aware of the twin lead being able to be in contact with people and animals.

question- If I did have a 4:1 balun I was informed that the 50 ohm coax from the tuner to the balun shouldn't be any longer than 10' to keep the coax from radiating?

Thanks for your time.

Scott  
ae4tc

-----  
Date: Thu, 2 Jan 2003 08:05:55 -0700  
From: "Chris Trask" <chistrask@earthlink.net>  
To: <scott@defiant.mcgeorgecarco.com>,  
"Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>  
Subject: [143799] Re: Antenna question  
Message-ID: <005b01c2b270\$7428afe0\$62883a41@ctrask>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="Windows-1252"  
Content-Transfer-Encoding: 7bit

On Thursday, January 02, 2003 7:42 AM, Scott Galloway wrote:

>  
> I have put together a 40m dipole fed at center with 300 ohm ladder  
> line. I want to be able to work 40-10 with it at 5w or less. I am  
> using the low-loss radio shack tv twin lead.  
>  
> question- I don't have a 4:1 balun but was planning on running  
> the twin lead straight to the tuner anyway. I cannot avoid the  
> twin lead lying on the ground, it is going to enter the foundation  
> of my house and up through the floor. I know I need to avoid metal  
> objects but is this going to compromise the antenna? I also am  
> aware of the twin lead being able to be in contact with people and

```

> animals.
>
> question- If I did have a 4:1 balun I was informed that the 50
> ohm coax from the tuner to the balun shouldn't be any longer
> than 10' to keep the coax from radiating?
>

```

Since you are forced to run the feedline on the ground, you really should invest in a 4:1 balun. When doing so, the unbalanced impedance will be 75 ohms, which would explain the advice of not using more than 10' of 50 ohm coax. At QRP power levels, a good match to the antenna deserves a bit more attention to details, just as it does for receiving antennas where a mismatch can result in excessive losses and degraded noise figure (antenna temperature).

There should be plenty of web pages out there that describe the construction of baluns suitable for QRP operation. For receiving antennas, just about anything will do provided the ferrite material is Fair-Rite mix 61 or something comparable, although I insist on using binocular cores as the leakage inductance is lower than for toroids. The power levels do not place all that much emphasis on the ferrite materials (avoid powdered iron). Since you want to operate from 10M to 40M, it would be best to make the balun as a wideband transformer rather than a series of quarterwave transmission lines as the latter is frequency dependent.

I know that this is not exactly the answer you were looking for, but I thought I would offer this because of the situation you are facing.

Chris

```

      /-----\
     /  What's all this  \
    / extinct stuff, anyhow? \
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          c__; c__; '---'>._

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High Performance Mixers and  
Amplifiers for RF Communications

Chris Trask / N7ZWY  
Principal Engineer  
Sonoran Radio Research  
P.O. Box 25240  
Tempe, Arizona 85285-5240

IEEE Member #40274515

Email: [chistrask@earthlink.net](mailto:chistrask@earthlink.net)  
<http://www.home.earthlink.net/~chistrask>

Graphics by Loek Frederiks



----- Original Message -----

From: "Scott Galloway" <scott@defiant.mcgeorgecarco.com>  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Sent: Thursday, January 02, 2003 7:42 AM  
Subject: Antenna question

>  
> Thanks for your time.  
>  
>  
> Scott  
> ae4tc  
>

-----  
Date: Thu, 2 Jan 2003 10:09:55 -0500  
From: "Paul Mills" <quahog@localnet.com>  
To: <QRP-L@Lehigh.EDU>  
Subject: [143800] Re: Antenna question  
Message-ID: <000f01c2b271\$02b59b60\$d0659942@cybrinjn>  
MIME-Version: 1.0  
Content-Type: text/plain;  
                charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

I think that the antenna feedpoint will be very high impedance on 20m, basically two end fed half-waves (double zepp?). Solution would be to feed with a quarter-wave (~16' X VF) on 20m or multiple thereof. Why not go all the way: shorten flattop to 51', feed it with ~14.5' of twinlead to a couple of turns of coax as balun and coax feed to tuner? Voila, half size G5RV, good patterns on 40 and 20 and an extended double zepp on 10 -- real low-angle gain! Never could get mine to load up on 15 though...

Paul KB1GEJ

----- Original Message -----

From: Scott Galloway <scott@defiant.mcgeorgecarco.com>  
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Sent: Thursday, January 02, 2003 9:42 AM

Subject: Antenna question

>  
> I have put together a 40m dipole fed at center with 300 ohm  
ladder line. I want to  
> be able to work 40-10 with it at 5w or less. I am using the  
low-loss radio shack  
> tv twin lead.  
>  
>  
> question- I don't have a 4:1 balun but was planning on  
running the twin lead  
> straight to the tuner anyway. I cannot avoid the twin lead  
lying on the ground,  
> it is going to enter the foundation of my house and up through  
the floor. I  
> know I need to avoid metal objects but is this going to  
compromise the antenna? I  
> also am aware of the twin lead being able to be in contact  
with people and animals.  
>  
> question- If I did have a 4:1 balun I was informed that the  
50 ohm coax from the  
> tuner to the balun shouldn't be any longer than 10' to keep  
the coax from radiating?  
>  
>  
> Thanks for your time.  
>  
>  
> Scott  
> ae4tc  
>

-----  
Date: Thu, 2 Jan 2003 09:12:19 -0700  
From: "Rod N0RC" <rod@n0rc.us>  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>,  
"cqcl-1" <CQCLIST@yahoogroups.com>  
Subject: [143801] UPDATED: the "Rock-Mite" files  
Message-ID: <00cc01c2b279\$bace1490\$6401a8c0@greyrock>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="Windows-1252"  
Content-Transfer-Encoding: 7bit

FINALLY! ;-)

A long over due update, new Rock-Rile entries, plus some details and links to an enhanced Keyer chip from Jackson Harbor press.

Apologies to those who sent me stuff that took so long to be posted.

More coming in the days to follow. If you don't see your stuff just yet be patient.

73, Rod NØRC

the "Rock-Mite" files

<http://www.qsl.net/n0rc/rm/>

<http://www.radioactivehams.com/~n0rc/rm/> (redirects to qsl.net)

-----  
Date: Thu, 2 Jan 2003 09:41:36 -0600 (CST)  
From: Bruce Rattray <rattray@gpfn.sk.ca>  
To: Doug Hendricks <ki6ds@dospalos.org>  
Cc: Low Power Amateur Radio Discussion <qrp-l@lehigh.edu>  
Subject: [143802] Re: Status of MiniBoots Amp Kits  
Message-ID: <Pine.LNX.4.33.0301020934540.22441-100000@neale.gpfn.sk.ca>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Thanks very much Doug for the update on the mini-amp...please keep my order as I have a little idea of the huge effort required to turn these kits out by all the volunteers, having done similar, smaller projects in this neck of the woods...actually, the volunteers "pay" the most on any of these projects, not the buyers...Murphy is always lurking nearby eh!?...hihi...hope you had a Merry Christmas and Bonnie & I send you the finest wishes for good health and fortune in the New Year!...

..72/73 - Bruce (VE5RC+VE5QRP) QRP-C#1 QRP-L#886 ARCI#9683 Zombie#272  
A-1 Operator Club - 10/10# 944 - QRP Borg#1 - Whiner#10 -  
- VE5QRP SOC#11 - VE5RC SOC#12 - oo#148 - K2#2032 - COG#15 -  
"QRP! How sweet it is!" "I am da man wit "DAH" paddle!"

-----  
Date: Thu, 2 Jan 2003 09:57:02 -0700 (MST)

From: "Karl F. Larsen" <k5di@zianet.com>  
To: Scott Galloway <scott@defiant.mcgeorgecarco.com>  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [143803] Re: Antenna question  
Message-ID: <Pine.LNX.4.44.0301020941100.1907-100000@bucket.dog>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Thu, 2 Jan 2003, Scott Galloway wrote:

>  
> I have put together a 40m dipole fed at center with 300 ohm ladder line. I want  
to  
> be able to work 40-10 with it at 5w or less. I am using the low-loss radio shack  
> tv twin lead.

This is a good antenna for all band use. But it's important to  
force the feedline to remain balanced for 2 reasons. One it forces  
nearly all power to the antenna and second it will not radiate power.

>  
>  
> question- I don't have a 4:1 balun but was planning on running the twin lead  
> straight to the tuner anyway. I cannot avoid the twin lead lying on the ground,  
> it is going to enter the foundation of my house and up through the floor. I  
> know I need to avoid metal objects but is this going to compromise the antenna?  
I  
> also am aware of the twin lead being able to be in contact with people and  
animals.

>  
You need to make a 1:1 balun. If you have the ARRL Antenna book  
it shows you how to do it. I made a QRP 1:1 for my tiny T antenna tuner.  
Use a T-37-2 toroid or any you might have.

> question- If I did have a 4:1 balun I was informed that the 50 ohm coax from  
the  
> tuner to the balun shouldn't be any longer than 10' to keep the coax from  
radiating?  
>

Well, if there is a 10:1 SWR on the 300 ohm ribbon, there will  
be a 10:1 SWR on the coax too. Coax has much higher loss. But it might  
be better to put the balun in a waterproof box and run the coax under  
the house.

>  
> Thanks for your time.  
>  
>  
> Scott  
> ae4tc  
>

--

- Karl Larsen k5di Las Cruces, NM Az ScQRPions -

-----  
Date: Thu, 02 Jan 2003 09:01:27 -0800  
From: "laura halliday" <marsgal42@hotmail.com>  
To: qrp-1@lehigh.edu  
Subject: [143804] Re: OT:Compressing ARRL Acrobat files  
Message-ID: <F20526mYfDBQ8gTV7sW00014f09@hotmail.com>  
Mime-Version: 1.0  
Content-Type: text/plain; format=flowed

Robert Honan (robertus@harbornet.com) wrote about  
compressing PDF files:

>...  
>Adobe's Portable Document File (.pdf) specification already includes  
>compression, that is one of the reasons that it has become so ubiquitous.

While PDF provides a number of options on compression,  
including none at all (you can create PDF by hand with  
a text editor - try it!), one might argue that it is popular  
more because it is available for so many platforms, and  
with a documented specification, anybody who wishes can  
create programs that read or write PDF.

The PDF files on my web page are a case in point: they  
started as LaTeX source files, ended up as PostScript  
for printing, and I used ps2pdf to mung them to PDF.  
No Adobe software in sight!

Oh, by the way: PDF stands for Portable Document  
\*Format\*. Not Portable Document File.

Laura Halliday VE7LDH        "Que les nuages soient notre

Grid: CN89lg                      pied a terre..."  
ICBM: 49 16.57 N 123 0.24 W       - Hospital/Shafte

-----  
The new MSN 8 is here: Try it free\* for 2 months  
<http://join.msn.com/?page=dept/dialup>

-----  
Date: Thu, 02 Jan 2003 10:11:28 -0700  
From: "P. Ermisch" <ermisch@usa.net>  
To: <qrp-l@Lehigh.EDU>  
Subject: [143805] KG6CYN DDS kit group component buy?  
Message-ID: <878HaBRLC1552S21.1041527488@uwdvg021.cms.usa.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset=ISO-8859-1  
Content-Transfer-Encoding: quoted-printable

If there is a group component purchase going on, I'd like to participate.=  
=

Mainly interested in the SMD and Minicircuits parts. If there is none going on, folks can contact me to start one up.

Paul KB0LUR

-----  
Date: Thu, 2 Jan 2003 12:41:56 -0500  
From: "vze4jt6u" <vze4jt6u@verizon.net>  
To: "QRP-L" <qrp-l@Lehigh.edu>  
Subject: [143806] OT (partially): Palm PDA, Logging & Serial CW Sender  
Message-ID: <000501c2b286\$3f0ec6d0\$fc53fea9@Sharon>  
MIME-Version: 1.0  
Content-Type: text/plain;  
                charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

All,

I'd like to make a start at PDA logging, etc. I've never used a so-called PDA, but think a Palm unit would be good to start with, given that there's some logging software for it and the Serial CW Sender kit.

It appears that a Palm M100, M105 or M125 would keep me "entertained" for some time to come, while the M130 would provide color entertainment. BUT, would all of these models work with the popular PDA logging programs

and the Serial CW Sender kit? I will probably use some other "applications", as well.

I sure would appreciate any guidance on which of the Palm PDAs would be sensible to start out with!

72/73

Cal K4JSI

-----  
Date: Thu, 2 Jan 2003 09:42:36 -0800 (PST)  
From: Gary Slagel <gdslagel@yahoo.com>  
To: QRP L <qrp-l@Lehigh.EDU>  
Subject: [143807] Baluns: homebrew vs commercial  
Message-ID: <20030102174236.690.qmail@web11607.mail.yahoo.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii

Hi guys!

I've got two antennas (2 el quad and dipole) fed with balanced line (450 ohm & 300 ohm). I want to put a balun outside the shack and run coax into the shack to keep the rf outside! I've looked at the 'remote balun 4' at radio works that is designed specifically for this and costs \$50. I've also looked at homebrewing a 4 to 1 balun as a bifilar winding on a ferrite core. Does anyone have any input on whether its worth the extra \$\$'s for the radioworks balun?

Thanks,  
Gary

=====  
Gary Slagel/N0SXX  
Conifer, CO 80433  
gdslagel@yahoo.com  
Personal Website: <http://gdslagel.bravepages.com>

-----  
Do you Yahoo!?  
Yahoo! Mail Plus - Powerful. Affordable. Sign up now.  
<http://mailplus.yahoo.com>  
-----

Date: Thu, 2 Jan 2003 12:59:58 -0500  
From: "w8diz" <w8diz@fpqrp.com>  
To: <gdslagel@yahoo.com>,  
"Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [143808] Re: Baluns: homebrew vs commercial  
Message-ID: <000601c2b288\$c3b34f80\$b8cf1d41@cinci.rr.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="Windows-1252"  
Content-Transfer-Encoding: 7bit

Hello Gary,

The use of a BALUN to "keep the radiation outside" can be tricky. Assume that your RIG has an unbalanced 50 ohm output (big assume), then you run 50 ohm coax to a 1 to 4 balun, the other side of which MUST see 200 ohms. If you do not have 200 ohms on the outside of the 1:4 balun, the coax will have standing waves and will lose power through heat and radiation.

Best bet to keep the "radiation outside the shack" is to place a balun on the outside of your antenna tuner and feed it with ANY balanced line or better yet, place a balun on the output of your transmitter and feed that to a balanced antenna tuner with balanced feedline.

All of this assumes that you have a "balanced" radiator.

Sure a lot of ASSUME here...and you know what that means...

72 & "oo's" - Dieter (DIZ) Gentzow - W8DIZ - Loveland, Ohio  
Clermont County - EM79uf - near Cincinnati; 39:13:05N 84:18:18W  
RIG:multiPIG+ ANT:470 FT Horiz Loop <http://kitsandparts.com>

----- Original Message -----

From: "Gary Slagel" <gdslagel@yahoo.com>  
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Sent: Thursday, January 02, 2003 12:42 PM  
Subject: Baluns: homebrew vs commercial

Hi guys!

I've got two antennas (2 el quad and dipole) fed with balanced line (450 ohm & 300 ohm). I want to put a balun outside the shack and run coax into the shack to



keep the rf outside! I've looked at the 'remote balun 4' at radio works that is designed specifically for this and costs \$50. I've also looked at homebrewing a 4 to 1 balun as a bifilar winding on a ferrite core. Does anyone have any input on whether its worth the extra \$\$'s for the radioworks balun?

Thanks,  
Gary

=====

Gary Slagel/N0SXX  
Conifer, CO 80433  
gdslagel@yahoo.com  
Personal Website: <http://gdslagel.bravepages.com>

-----  
Do you Yahoo!?  
Yahoo! Mail Plus - Powerful. Affordable. Sign up now.  
<http://mailplus.yahoo.com>

-----  
Date: Thu, 2 Jan 2003 13:00:47 -0500 (Eastern Standard Time)  
From: "Mike WA8BXN" <hubby2k@hotmail.com>  
To: <vze4jt6u@verizon.net>, <qrp-l@Lehigh.EDU>  
Subject: [143809] Re: OT (partially): Palm PDA, Logging & Serial CW Sender  
Message-ID: <3E147E4F.00000E.35901@pentium>  
MIME-Version: 1.0  
Content-Type: Text/Plain  
Content-Transfer-Encoding: quoted-printable

They will all work. For those that come with a USB cable, you will have to get a serial cable (M130 for example). Another consideration is batteries. Replaceable batteries might be best depending on your planned usage. The M130 comes with internal rechargeable batteries but they charge through the single port that is also used for the serial connection so you run into a bit of a problem with the serial sender if you need to recharge your batteries! Battery life of the M130 is a few hours between charges, that color display with backlight really takes a lot of power. I originally bought a M130 for your same purposes (its a very nice PDS for other apps) but then got a M105 for the serial sender etc. Both have their place, and you can beam programs and data back and forth between them.

72/73 - Mike WA8BXN

-----  
Date: Thu, 2 Jan 2003 10:22:13 -0800  
From: "William Phinizy" <k6whp@verizon.net>  
To: "QRP-L" <qrp-l@Lehigh.EDU>  
Subject: [143810] Re: Source for 102" steel whips(?) Thanks!  
Message-ID: <001201c2b28b\$e01954f0\$9e60e043@k6whp>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="Windows-1252"  
Content-Transfer-Encoding: 7bit

My thanks to all of the great ideas. I was able to locate one locally because I got the part number (210-0903) From Mike off the list. They are a strock item and they are \$14.99.

72,

Bill, k6whp

-----  
Date: Thu, 02 Jan 2003 13:21:55 -0500  
From: "Hugo W. Catta" <hugo@optonline.net>  
To: qrp-l@Lehigh.EDU  
Subject: [143811] Need part for Norcal paddles  
Message-ID: <001b01c2b28b\$d5181a00\$0500a8c0@hugocatt>  
MIME-version: 1.0  
Content-type: text/plain; charset=iso-8859-1  
Content-transfer-encoding: 7BIT

Hi, All:

I'm looking for a steel base of the original norcal paddles. Either rough, polished or painted as long as the threads are fine.  
I have the rest of the components to put one together except for the base.

TIA

72,  
Hugo  
AA1XV

-----  
Date: Thu, 2 Jan 2003 10:36:44 -0800  
From: "William Phinizy" <k6whp@verizon.net>  
To: "QRP-L" <qrp-l@Lehigh.EDU>  
Subject: [143812] HTX-10 Update..and unclear on the concept.  
Message-ID: <002401c2b28d\$e7898f00\$9e60e043@k6whp>  
MIME-Version: 1.0  
Content-Type: text/plain;  
                charset="Windows-1252"  
Content-Transfer-Encoding: 7bit

Just a word of thanks to all those passed along the comments and information on Radio Shack's HTX-10 deal. The mini-review was a dead-on appraisal of the radio. The deal still persists and, although they are a closeout special at \$89.95, there are still a number of them available. The dealer I bought mine from had two in stock \*and\* a demo unit.

If you get one, be sure to check out the FM audio IMMEDIATELY because some units have had difficulty with same. You might as well have it fixed on their nickel, if you know what I mean. Also, you will probably have some problems with "hazy" FM receive audio and there's an adjustment for that on the following site:

<http://www.qsl.net/n2ffl/htx10.htm>

It's pretty straightforward -- just tweak an inductor/transformer (T3) a quarter turn or so. Be sure you are careful, however, because it will probably void your warranty.

There are a number of 10-meter repeaters around and a great many of them are NOT PL'ed despite the listings to the contrary. The most prominent from my QTH, Southern California, are W5DFW on 28.660 (-100 KHz) and KR4X on 28.640 (also -100 KHz). However, it's kind of interesting to listen to a repeater output when one is keyed up; there's a ton o' heterodynes!

Unclear on the Concept

~~~~~

There's just one thing that puzzles me what with RS having these guys on sale and all. Why on earth would anyone bid the price of these guys up to \$100+shipping on eBay? Guess there's no Radio Shack close to them, I suppose.

72,

Bill, k6whp

Date: Thu, 2 Jan 2003 11:37:23 -0700 (MST)
From: "Karl F. Larsen" <k5di@zianet.com>
To: Gary Slagel <gdslagel@yahoo.com>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [143813] Re: Baluns: homebrew vs commercial
Message-ID: <Pine.LNX.4.44.0301021132080.2011-1000000@bucket.dog>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

As I said earlier today, better to make a 1:1 balun and come inside with coax. But today I have a 450 ohm feedline that runs through the wall with a bunch of coax connectors. I have taken a small florescent light as close to the 450 ohm line as I can get and it will not light. But un-balance that line (as I have done) and the thing lights many inches away from the feedline.

On Thu, 2 Jan 2003, Gary Slagel wrote:

> Hi guys!
>
> I've got two antennas (2 el quad and dipole) fed with
> balanced line (450 ohm & 300 ohm). I want to put a
> balun outside the shack and run coax into the shack to
> keep the rf outside! I've looked at the 'remote balun
> 4' at radio works that is designed specifically for
> this and costs \$50. I've also looked at homebrewing a
> 4 to 1 balun as a bifilar winding on a ferrite core.
> Does anyone have any input on whether its worth the
> extra \$\$'s for the radioworks balun?
>
> Thanks,
> Gary
>
>
> =====
> Gary Slagel/N0SXX
> Conifer, CO 80433
> gdslagel@yahoo.com
> Personal Website: <http://gdslagel.bravepages.com>
>
> -----
> Do you Yahoo!?
> Yahoo! Mail Plus - Powerful. Affordable. Sign up now.
> <http://mailplus.yahoo.com>

>

--

- Karl Larsen k5di Las Cruces, NM Az ScQRPions -

Date: Thu, 02 Jan 2003 13:55:37 -0500
From: Gary Lee <kb9zuv@arrl.net>
To: qrp-l@lehigh.edu
Subject: [143814] streight key recomendation needed
Message-ID: <3.0.6.32.20030102135537.0079d6a0@mailhost.ind.ameritech.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I currently have a j37, which works well enough but is inconvenient for home use.

I have a j38 for which I am still hunting replacement ball bearings.

I would like a recommendation for a good general purpose streight key.

I've seen some of the adds for those \$100 plus special edition keys. Not what I am after.

Any help appreciated.

Gary Lee
Ball State University
765-285-1310

Date: Thu, 2 Jan 2003 10:46:07 -0800
From: "N4LGH" <n4lgh@waveguide.us>
To: "QRP-L" <qrp-l@lehigh.edu>
Subject: [143815] I'm baaaaaak
Message-ID: <GNEOLGDJDOPEALHJMKLCCEKPDEAA.n4lgh@waveguide.us>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

You kids can't get rid of me that easily lol.

I had to unsub my ByteMark email, so I made up this new one -
n4lgh@waveguide.us

Did I miss anything critical in the past month?

I made a keyer with the HC908QT1 (or was it QY1, mix 'em up) demo I got from Motorola. As far as micro controllers go, this is darn sure a QRP controller lol. Really low power draw, 8 pins, and easy code.

Too much fun!
Tracy N4LGH

Date: Thu, 2 Jan 2003 10:52:03 -0800
From: "Bob Tellefsen" <n6wg@earthlink.net>
To: <qrp-1@lehigh.edu>
Subject: [143816] Re: Antenna question
Message-ID: <MABBJOEABOILMKCJCLFCKEKLD0AA.n6wg@earthlink.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Scott

Some ideas.

If you can't avoid having your twinlead laying on the ground, can you put something under it, like a 2x4 maybe? Anything to space it away from damp ground would be to your benefit.

The 4:1 balun would only be appropriate if the feedpoint at the shack end of the line is well above 50 ohms. On some bands it will be low, and then the simple 1:1 choke balun is more appropriate.

Both balun types can be wound easily on toroid cores, or ferrite rods such as those from old BC transistor radios. At 5W you don't need large wire, either. #24-#18 would probably do just fine. There are lots of articles in the Handbook and on the web on how to make simple baluns.

Good luck and enjoy.
73, Bob N6WG

Date: Thu, 02 Jan 2003 11:06:29 -0800
From: Robert Honan <robertus@harbornet.com>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [143817] Re: OT:Compressing ARRL Acrobat files
Message-ID: <3E148DB5.66506EB4@harbornet.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Remind me to never again snicker when someone gets an acronym wrong. I *knew* that was format and not file. I plead the lateness of the hour as my only excuse.

laura halliday wrote:

> Oh, by the way: PDF stands for Portable Document
> *Format*. Not Portable Document File.

--
Robert J. Honan KD7QLJ <kd7qlj@arrl.net>

~~~~~  
There are 10 types of people in the world:  
those that understand binary, and those that don't.

-----  
Date: Thu, 2 Jan 2003 12:06:08 -0800 (PST)  
From: Gary Slagel <gdslagel@yahoo.com>  
To: QRP L <qrp-l@Lehigh.EDU>  
Subject: [143818] More Baluns: homebrew vs commercial  
Message-ID: <20030102200608.24204.qmail@web11607.mail.yahoo.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii

Thanks for the input on the message below.

I had a few folks wonder why I was worried about rf on a balanced line coming into the shack as a balanced line by its nature shouldn't be radiating. Thinking about it, probably true but it seems like somewhere in my past I had trouble with rf when I brought balanced line in the shack and cured it by making a coax balun

and leaving it outside. At any rate, I've also got a problem of bringing 2 balanced lines in, side by side, through a 12" run of 2" pvc. So... I'd really like to stick with the coax coming in. I was always a little leary of the coax balun cause of all the extra coax it introduced and I figured I must be getting extra loss there.

Another suggestion was: why bother with a 4 to 1 balun when I don't really know the impedance at the end of my balanced line (unless I measure it, another good suggestion), might be too high OR too low so don't really know what kind of balun I need. So, I think the best thought I heard was to make a 1 to 1 bead balun w2du style (which I think I've read is really just an rf choke) and keep the coax run short.

I headed to my local electronics shop (Gateway Electronics in Denver) for fb73-2401 ferrite beads only to find them permanently closed as of Dec 31.... really bad deal for us hams in Denver. But, that'll be my plan unless somebody changes my mind before I get 'em ordered on the internet.

Thanks again for all the input.

Gary

>  
> I've got two antennas (2 el quad and dipole) fed  
> with  
> balanced line (450 ohm & 300 ohm). I want to put a  
> balun outside the shack and run coax into the shack  
> to  
> keep the rf outside! I've looked at the 'remote  
> balun  
> 4' at radio works that is designed specifically for  
> this and costs \$50. I've also looked at homebrewing  
> a  
> 4 to 1 balun as a bifilar winding on a ferrite core.  
>  
> Does anyone have any input on whether its worth the  
> extra \$\$'s for the radioworks balun?  
>



=====

Gary Slagel/N0SXX  
Conifer, CO 80433  
gdslagel@yahoo.com  
Personal Website: <http://gdslagel.bravepages.com>

-----  
Do you Yahoo!?

Yahoo! Mail Plus - Powerful. Affordable. Sign up now.  
<http://mailplus.yahoo.com>

-----  
Date: Thu, 2 Jan 2003 13:09:30 -0700  
From: "Dave Ek" <ekdave@earthlink.net>  
To: "Low Power Amateur Radio Discussion" <qrp-1@lehigh.edu>  
Subject: [143819] Re: OT (partially): Palm PDA, Logging  
Message-ID: <001b01c2b29a\$dc9b05d0\$8989fea9@oldman>  
MIME-Version: 1.0  
Content-Type: text/plain;  
                charset="Windows-1252"  
Content-Transfer-Encoding: 7bit

Cal,

Mike makes a good point regarding the choice of display. I'd highly recommend an m100 or 105, or a handspring visor, instead of one of the upper-end models. I use my m100 quite frequently, and it runs for a month or two between battery changes. The monochrom LCD screen is much easier on batteries (even with the backlight on), and using the Serial Sender with the Palm will increase battery consumption (due to the use of the palm's serial port). If you're planning to go portable with the palm and the sender, you'll want the option to replace the batteries instead of having to recharge them. You can easily work an entire field day off four AAA batteries with a Palm m100 and the serial sender (the sender can probably run the entire field day off one or two 9V batteries). If, like me, you discover that the palm is handy for other things, you might want to consider the m105 instead, since it has more memory.

I'm the guy who designed the Serial Sender, and who wrote GOLog, the corresponding logging software for the Palm. I'll be happy to answer any other questions you might have regarding the setup.

73 de Dave NK0E

-----

Date: Thu, 2 Jan 2003 13:13:18 -0700  
From: "Dave Ek" <ekdave@earthlink.net>  
To: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>  
Subject: [143820] Re: OT:Creating (was Compressing) ARRL Acrobat files  
Message-ID: <001f01c2b29b\$644fc6a0\$8989fea9@oldman>  
MIME-Version: 1.0  
Content-Type: text/plain;  
                charset="Windows-1252"  
Content-Transfer-Encoding: 7bit

Regarding the \*creation\* of PDF files, there is a free GNU program called GhostScript that will run in Windows and can be used to convert postscript files to pdf files. I use it in conjunction with a graphical front-end called GSView (also free). To use it, you first must install a printer driver for a postscript (PS) printer, and then use that driver to print to a file (from any Windows program). Then take the resultant file, rename it to .ps if necessary, and then use GhostScript to convert it to a PDF. GhostScript does not do compression like I suspect Adobe Acrobat does, but Acrobat reader will read ghostscript-created files with no trouble.

73 de Dave NK0E

-----  
Date: Thu, 02 Jan 2003 15:28:27 -0500  
From: Garey Barrell <k4oah@mindspring.com>  
To: kb9zuv@arrl.net,  
      "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>  
Subject: [143821] Re: streight key recomendation needed  
Message-ID: <5.1.0.14.0.20030102151932.00a3a830@mail.mindspring.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"; format=flowed

Gary -

"Real" J-38's don't have ball bearings. What you may have is a "JJ-38" which was a poor Japanese copy.

There are many excellent keys available, unfortunately most are \$50 and up. Kent, Wm M Nye, Hi-Mound and Morse Express all make excellent keys. A good source for information is at:

<http://www.morsex.com/keys.htm>

Keys are highly personal, but there are a couple of things that I would

recommend. One is to try and get a "Navy" knob. This is one name for the small disc below the key knob. The tendency is to either use one finger, which is not good, or to cram three or four fingers on top of a small knob. The Navy knob allows you to rest one or two fingers on the knob and let your thumb and another finger rest on the disc. MUCH more comfortable, at least for me.

The other would be to avoid the miniature keys unless you are back-packing or have a very small operating position! They also tend to cramp up your fingers trying to control. Personal opinion!

BTW, "real" J-38's were sold from barrels (like peanuts) in the late 50's for \$0.50 or less, brand new in the package. Highly subsidized by the taxpayers, of course! :-)

73, Garey - K40AH  
Atlanta

At 01:55 PM 1/2/2003, Gary Lee wrote:

>I have a j38 for which I am still hunting replacement ball bearings.

>

>I would like a recommendation for a good general purpose streight key.

-----  
Date: Thu, 02 Jan 2003 20:29:09 +0000  
From: k4vib@att.net  
To: qrp-1@Lehigh.EDU  
Subject: [143822] Need help understanding resistor arrays....  
Message-ID: <20030102202909.JLCW12483.mtiwmhc12.worldnet.att.net@mtiwebc21>

Take for instance a 27K SIP resistor pack with 6 pins and 3 resistors....does that mean that there are 3 27K resistors on board or does the three resistors total up to 27K??

Thanks,

Bill  
K4VIB

-----  
Date: Thu, 2 Jan 2003 15:47:11 EST  
From: J38AL@aol.com  
To: qrp-1@lehigh.edu

Subject: [143823] Re: Status of MiniBoots Amp Kits  
Message-ID: <ba.33ad2484.2b45ff4f@aol.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="US-ASCII"  
Content-Transfer-Encoding: 7bit

<<If you have ordered a Mini-Boots kit and would like a refund, we will be happy to send you your money. All that you have to do is send Jim Cates an email at wa6ger@aol.com and ask for it. But we hope that you will be patient with us. Thanks for your patience and support on this project. 72, Doug>>

Thanks for the update Doug. Waiting a little while for a quality kit is no problem. Getting on the list for a NorCal kit is sometimes near impossible. I'll just work on another of my back-logged projects. YES, we all have them <;-)>

72, Al N2ZHS  
Scotia, NY

-----  
Date: Thu, 2 Jan 2003 15:01:08 -0500  
From: Brian Short <bshort4@cox.net>  
To: Low Discussion <qrp-l@Lehigh.EDU>  
Subject: [143824] [OT] You've Got ... QSLs (Part 2) or QSL Via Buro (long)  
Message-ID: <EF28EC0C-1E8C-11D7-930A-00306543B616@cox.net>  
Mime-Version: 1.0 (Apple Message framework v551)  
Content-Type: text/plain; charset=US-ASCII; format=flowed  
Content-Transfer-Encoding: 7bit

QSL Via Buro

For years there has been a system for simplifying and reducing the costs of exchanging QSL cards with hams in foreign countries. These are the QSL Bureaus.

In the United States, the ARRL operates an Outgoing QSL Bureau. I know because I have used it and my QSLs were acknowledged. It works by having hams throughout the country send their cards to a collecting area where they are sorted by country and subsequently sent in large batches to Incoming QSL Bureaus in the various foreign countries.

Since the cards are sent in bulk, the cost to the Bureau is less than each ham sending them separately and the savings to the middleman is passed on to us, the

customers. Unfortunately, not everywhere in the world can be serviced by this system. There is a list of countries and locations not serviced.

Distribution of cards in the various foreign countries is handled by the system of Incoming QSL Bureaus where hams keep self addressed stamped envelopes (SASEs) on file. The Incoming Bureaus sort the cards destined for each amateur in their area. Periodically, they fill an SASE with cards and send them along to the final recipient.

In the United States, each call area (0-9) has its own Incoming QSL Bureau. Personally, I receive my cards from the 7'th Call Area Incoming QSL Bureau operated on a volunteer basis by the Willamette Valley DX Club. I appreciate their dedicated efforts.

I try to keep my Incoming Bureau stocked with envelopes and postage, but they usually tell me when I'm about to run out of either. I think it is worthwhile for everybody to give their support to the QSL Bureaus and keep their SASEs on file. It wouldn't be so bad to thank the volunteers either, but that is a personal call, I guess.

--

See my web page: <http://www.k7on.com>

-----  
Date: Thu, 02 Jan 2003 22:15:01 +0100  
From: Ingo Meyer DK3RED <dk3red@gmx.net>  
To: qrp-1@Lehigh.EDU  
Subject: [143825] Re: Need help understanding resistor arrays....  
Message-ID: <5.1.1.6.1.20030102220701.009e57d0@pop.gmx.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"; format=flowed

Hello Bill,

>Take for instance a 27K SIP resistor pack with 6 pins and 3 resistors....does  
>that mean that there are 3 27K resistors on board or does the three resistors  
>total up to 27K??

The value on the pack means EACH resistor are 27k ohms. But check the pack with an ohm meter. There are 2 different packs. But if you know that 3 resistors are in the pack with 6 pins so it is the second one.

```

+-----+-----+-----+-----+-----+
|       |       |       |       |       |
27k    27k    27k    27k    27k    |
|       |       |       |       |       |
o       o       o       o       o       o

```

```

+-----+       +-----+       +-----+
|       |       |       |       |       |
27k    |       27k    |       27k    |
|       |       |       |       |       |
o       o       o       o       o       o

```

72/73 de Ingo, DK3RED Don't forget: the fun is the power!

dk3red@t-online.de    <http://www.t-online.de/~dk3red>  
 DL-QRP-AG #824        <http://www.dl-qrp-ag.de>  
 QRP ARCI #11295      <http://www.qrparci.org>

-----

Date: Thu, 2 Jan 2003 15:29:12 -0500  
 From: Brian Short <bshort4@cox.net>  
 To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
 Subject: [143826] Re: [OT] You've Got ... QSLs! Part 1 (long)  
 Message-ID: <DA8090BC-1E90-11D7-930A-00306543B616@cox.net>  
 Content-Type: text/plain; charset=US-ASCII; format=flowed  
 Mime-Version: 1.0 (Apple Message framework v551)  
 Content-Transfer-Encoding: 7bit

FWIW,

There will be MORE than 2 parts. I don't know how many.

Since I'm just making this up as I go and since I have no idea when the Cease and Desist Order will arrive at my door I can't accurately predict.

On Thursday, January 2, 2003, at 07:54 AM, Bill, N4QA wrote:

```

>
> Brian,
> Anxiously awaiting Part Two...
> eQSL, it seems, is not for everyone.
> FWIW, eQSL IS for me.
> I believe that eQSL has made their service as reliable and easy-to-use

```

> as is necessary.  
> I also believe that the tallest hurdle which eQSL has to cross is the  
> NIH (Not Invented Here) attitude.  
>  
> 73.  
> Bill, N4QA  
> <http://www.qsl.net/n4qa/>  
--  
See my web page: <http://www.k7on.com>

-----  
Date: Thu, 02 Jan 2003 16:34:01 -0500  
From: "William K. Harding" <k4ahk@ix.netcom.com>  
To: k4vib@att.net,  
    Low Power Amateur Radio Discussion <qrp-l@lehigh.edu>  
Subject: [143827] Re: Need help understanding resistor arrays....  
Message-ID: <E18UCxb-0006eh-00@smtp10.atl.mindspring.net>  
Mime-version: 1.0  
Content-type: text/plain; charset="US-ASCII"  
Content-transfer-encoding: 7bit

Bill:

Resistor arrays are assembled as a group of single resistors or as a network with one lead of each tied to a common bus. The value marked on the array is the value of each individual resistor. Since you have 6 pins and 3 resistors, you probably have one resistor connected to pins 1 and 2, another connected to pins 3 and 4 and the third connected to pins 5 and 6.

If it were an array with a common bus, there would be five resistors. The common bus is usually pin 1 and the 5 resistors would have their opposite leads connected to pins 2 thru 6.

An ohm meter will prove what you have.

Bill - K4AHK  
Burke, VA

-----  
>From: k4vib@att.net

>Take for instance a 27K SIP resistor pack with 6 pins and 3 resistors....does  
>that mean that there are 3 27K resistors on board or does the three resistors  
>total up to 27K??

Date: Thu, 2 Jan 2003 13:39:17 -0800 (PST)  
From: Bill ROWLETT <kc4atu@yahoo.com>  
To: bshort4@cox.net,  
Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [143828] Re: [OT] You've Got ... QSLs (Part 2) or QSL Via Buro (long)  
Message-ID: <20030102213917.62405.qmail@web14208.mail.yahoo.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii

Brian,

As a 4th call area incoming bureau letter manager, I  
thank you for the kind words.

73, Bill kc4atu

-----  
Do you Yahoo!?  
Yahoo! Mail Plus - Powerful. Affordable. Sign up now.  
<http://mailplus.yahoo.com>

-----  
Date: Thu, 02 Jan 2003 16:06:00 -0600  
From: MIKE SOUHRADA <wb9iog@revealed.net>  
To: k4oah@mindspring.com  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [143829] Re: streight key recomendation needed  
Message-ID: <3E14B7C8.30309@revealed.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii; format=flowed  
Content-Transfer-Encoding: 7bit

Garey & Gary -

>  
> "Real" J-38's don't have ball bearings. What you may have is a "JJ-38"  
> which was a poor Japanese copy.  
I was going to look to see myself and your are dead on - no ball bearings.  
The other JJ is not all that bad if it's an older key. I've seen many  
versions.

The fix: Ball bearings inside computer hard drives. All have some form  
or other and are Japanese metric for the most part.  
I've repaired one exactly that way. You need a good sized junk pile  
to select the sizes.  
Also seems to me that I've seen bearings available at True Value  
hardware stores. You'd be surprised what a well stocked store really



has, but you have to look closely.

Mike  
Iowa

-----  
Date: Thu, 02 Jan 2003 22:14:46 +0000  
From: k4vib@att.net  
To: qrp-l@Lehigh.EDU  
Subject: [143830] Re: Need help understanding resistor arrays  
Message-ID: <20030102221445.QRDK9286.mtiwmhc11.worldnet.att.net@mtiwebc08>

Thanks everyone for the information!!!!

Bill  
K4VIB

-----  
Date: Thu, 2 Jan 2003 15:15:42 -0700  
From: "Dave Ek" <ekdave@earthlink.net>  
To: "Jose Vicente" <vicente@supernet.com.br>  
Cc: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>  
Subject: [143831] Re: OT:Creating (was Compressing) ARRL Acrobat files  
Message-ID: <000d01c2b2ac\$7df1e8c0\$8989fea9@oldman>  
MIME-Version: 1.0  
Content-Type: text/plain;  
                charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

(Jose, I'm replying to the list because my replies direct to you are being rejected by your mail server.)

I use the "IBM 4079 Color Jetprinter PS" driver. Usually, the printers whose descriptions end in "PS" are the postscript printers.

Dave

----- Original Message -----  
From: "Jose Vicente" <vicente@supernet.com.br>  
To: <ekdave@earthlink.net>  
Sent: Thursday, January 02, 2003 1:56 PM  
Subject: Re: OT:Creating (was Compressing) ARRL Acrobat files

>  
> Please tell me how to install a fake PS printer in Windows 98, I don't  
> know a printer name for PS. I searched in the "add new printer" but  
> there is no clue for a PS printer.  
>  
> Thanks, Jose PY2AUC

-----  
Date: Thu, 02 Jan 2003 17:15:51 -0500  
From: Garey Barrell <k4oah@mindspring.com>  
To: MIKE SOUHRADA <wb9iog@revealed.net>  
Cc: Low Power Amateur Radio Discussion <qrp-l@lehigh.edu>  
Subject: [143832] Re: streight key recomendation needed  
Message-ID: <5.1.0.14.0.20030102170959.00a37050@mail.mindspring.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"; format=flowed

Mike -

My local True Value hardware does indeed have ball bearings in many sizes. I recently bought some to repair a Drake PT0. Those happened to be 0.125" dia, but as I recall they had ten or more different sizes in stock.

The JJ-38's that I have looked at have been very low quality, with flash on cast pieces and a generally "unfinished" appearance. I felt that the ball bearings were only added to give an appearance of quality!!

At the other end of the spectrum you have the Mercury and Schuur and others that are finished like a watch. With a price to match, unfortunately...

73, Garey - K40AH  
Atlanta

At 05:06 PM 1/2/2003, MIKE SOUHRADA wrote:

>Garey & Gary -  
>>"Real" J-38's don't have ball bearings. What you may have is a "JJ-38"  
>>which was a poor Japanese copy.  
>I was going to look to see myself and your are dead on - no ball bearings.  
>The other JJ is not all that bad if it's an older key. I've seen many  
>versions.  
>  
>The fix: Ball bearings inside computer hard drives. All have some form or  
>other and are Japanese metric for the most part.

>I've repaired one exactly that way. You need a good sized junk pile  
>to select the sizes.  
>Also seems to me that I've seen bearings available at True Value hardware  
>stores. You'd be surprised what a well stocked store really  
>has, but you have to look closely.  
>  
>Mike  
>Iowa  
>  
>

-----  
Date: Thu, 2 Jan 2003 14:17:34 -0800  
From: "Ian Wilson" <ianmwilson@earthlink.net>  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [143833] Class E design procedure  
Message-ID: <001d01c2b2ac\$c04595a0\$0b02a8c0@WorkGroup>  
MIME-Version: 1.0  
Content-Type: text/plain;  
                charset="Windows-1252"  
Content-Transfer-Encoding: 7bit

The recent thread on Class E amplifiers sparked my interest, so I took a look at some of the designs that I've seen mentioned on this list. These can be simulated using a very simple switch model for the active device (an attractive feature of Class E is that device characteristics are secondary). I found the results rather confusing, so I stopped simulating and read the great paper on Class E amplifiers by Sokal, viz.:  
<http://www.netway.com/~stevec/ham/sokal2corrected.pdf>

Sokal's 'low order' circuit has an inductor L1 from the MOSFET drain to the power rail, a coupling capacitor, a capacitor C1 to ground, then a series C2-L2 combination feeding the load of specified impedance, R. All the designs I had seen previously had something looking like a pi network between the coupling capacitor and the load. After a while I realized that the series C2-R combination can be transformed into a parallel equivalent. We then have something topologically the same as a pi network.

The transformation affects the resistive component also. We can add a 1-section pi network to the output to transform the new resistance value to match the load.

The output capacitance of the MOSFET can be absorbed by C1 by subtracting it from the design value of C1.

The two parallel capacitors in the center of the pi network can be combined into one by adding their values.

To see how this works out in practice, I set up a 7MHz design for P=6w, R=50ohm, Vcc=12V (etc). This produced the hoped-for Class E waveforms when simulated (using a squarish gate drive, or significantly overdriving with a sine wave, is essential by the way).

I then built the design using an IRF510. Somewhat to my surprise it worked pretty well, even though I used 20% tolerance capacitors in the matching networks. Measured efficiency of the PA stage was 90% at 5w output (total efficiency is a lot worse, since my driver stage is slurping up too much power). The waveforms look OK - the voltage across the MOSFET at switching times is quite small. The gate drive waveform is a not-very-square wave from 0 to 8v.

I don't have a way to measure the harmonic content of the output, but it looks very clean. This is consistent with the 5-element low-pass structure of the matching network.

I've written up the equations as a small C++ program; I can let people have this off-list (or will post if there are any requests; it's about 100 lines).

72 de ian, k3imw/6

-----  
Date: Thu, 02 Jan 2003 16:59:27 -0500  
From: Steven Weber <kd1jv@moose.ncia.net>  
To: kb9zuv@arrl.net  
Cc: qrp-l@lehigh.edu  
Subject: [143834] Re: streight key recomendation needed  
Message-ID: <3.0.6.32.20030102165927.007ac100@mailhost.ncia.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

The Hi-Mound HK-708 is a pretty good key for under \$50.00 Morse Express has them (or did)

72,  
Steve, KD1JV  
"Melt Solder"  
White Mountains of New Hampshire

<http://www.qsl.net/kd1jv/>

-----  
Date: Thu, 2 Jan 2003 17:25:42 -0500  
From: "Mike Yetsko" <myetsko@insydesw.com>  
To: <k4vib@att.net>,  
"Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>  
Subject: [143835] Re: Need help understanding resistor arrays  
Message-ID: <004701c2b2ad\$e46c8a00\$0300a8c0@charter.net>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

> Thanks everyone for the information!!!!  
>  
> Bill  
> K4VIB

I think catalogs like DigiKey have lots of resistor arrays. AND they show a schematic representation of what's in the part, which is invaluable to understanding the parts.

Mike

-----  
Date: Thu, 2 Jan 2003 17:36:55 -0500  
From: "Steve Lawrence" <Steve.Lawrence@ITWFEG.COM>  
To: kb9zuv@arrl.net  
Cc: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [143836] Re: Straight key recommendation needed  
Message-ID: <0F5FBD7ACA.240F777C-0N85256CA2.007AB7EA-85256CA2.007C3AB5@itwfeg.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Gary,  
Take a look at the W. M. Nye "Speed-X" style key. New, they run about \$50 from <http://www.morsex.com>. This key has the Navy knob which gives the fingers a few more resting places while in use. Another possibility is the Nye "Master" key at a few dollars more. However this has an internal micro-switch and a bit of a mushy feel (to me at least --- caution keys, like underwear, have a high 'individual preference' factor). I found both Nye keys on eBay - another possible source. I also own a Bencher RJ-1, purchased new, which has a solid, almost 'clicky' feel, and the preferred

(again to my tastes) Navy knob. Cost a bit higher at \$90.

I suppose I reach for the Bencher key most often, but I cannot be considered an accomplished "brass pounder" when it comes to the subject of straight keys. I might add that I replaced the stock spring in the Bencher to reduce the closing pressure. To my feel, the factory spring is a bit too heavy.

Listen to others on this list. I suspect you might see some alignment of recommendations.

GL,  
Steve  
aa8af

Gary Lee <kb9zuv@arrl.net>  
Sent by: owner-qrp-1@Lehigh.EDU  
01/02/2003 01:55 PM  
Please respond to kb9zuv

To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
cc:  
Subject: streight key recomendation needed

I currently have a j37, which works well enough but is inconvenient for home use.

I have a j38 for which I am still hunting replacement ball bearings.

I would like a recommendation for a good general purpose streight key.

I've seen some of the adds for those \$100 plus special edition keys. Not what I am after.

Any help appreciated.

Gary Lee  
Ball State University  
765-285-1310

-----  
Date: Thu, 2 Jan 2003 16:42:46 -0600  
From: Karl Kanalz <kkanalz@gcecispc.com>  
To: "'k4vib@att.net'" <k4vib@att.net>,  
Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [143837] RE: Need help understanding resistor arrays....  
Message-ID: <01C2B27E.031C3980@KKANALZ>

Whip out your ohmmeter (or multimeter) and simply measure them, Bill!

The six pins with 3 resistors would indicate to me that each resistor is not connected to another within the SIP (i.e., they are "independent" resistors). So just measure the resistance of each resistor.

Karl K - W8TIF  
McKinney, Texas

-----Original Message-----

From: k4vib@att.net [SMTP:k4vib@att.net]  
Sent: Thursday, January 02, 2003 2:29 PM  
To: Low Power Amateur Radio Discussion  
Subject: Need help understanding resistor arrays....

Take for instance a 27K SIP resistor pack with 6 pins and 3 resistors....does that mean that there are 3 27K resistors on board or does the three resistors total up to 27K??

Thanks,

Bill  
K4VIB

-----  
Date: Thu, 02 Jan 2003 16:42:23 -0600  
From: KD5NWA <KD5NWA@cbayona.com>  
To: ianmwilson@earthlink.net, qrp-1@lehigh.edu  
Subject: [143838] Re: Class E design procedure

Message-ID: <5.2.0.9.0.20030102162857.00a82478@pop.cbayona.com>

Mime-Version: 1.0

Content-Type: text/plain; charset="us-ascii"; format=flowed

That paper by Sokal is really quite interesting and useful, I have read it at least 15 times, he has another paper on how putting a further filter on the output of the amplifier makes it necessary to make adjustments to the values of the capacitors and inductors of the amplifier and gives the equations to figure the corrected values. James L. Tonne WB6BLD has a small program that once you give it the qualities of the amplifier you want, it will calculate the capacitors and inductors required, give you an estimate of the efficiency you can achieve, and it also generates a SPICE netlist for you to play with and see the waveform before you build it, it is a very nice program. Hopefully with all this discussions going on, it will encourage kit manufacturers to use class E and F amplifiers in the smaller portable units to increase battery life.

At 04:17 PM 1/2/2003, you wrote:

>The recent thread on Class E amplifiers sparked my interest, so I took a  
>look at some of the designs that I've seen mentioned on this list. These can  
>be simulated using a very simple switch model for the active device (an  
>attractive feature of Class E is that device characteristics are secondary).  
>I found the results rather confusing, so I stopped simulating and read the  
>great paper on Class E amplifiers by Sokal, viz.:

><http://www.netway.com/~stevec/ham/sokal2corrected.pdf>

>

>Sokal's 'low order' circuit has an inductor L1 from the MOSFET drain to the  
>power rail, a coupling capacitor, a capacitor C1 to ground, then a series  
>C2-L2 combination feeding the load of specified impedance, R. All the  
>designs I had seen previously had something looking like a pi network  
>between the coupling capacitor and the load. After a while I realized that  
>the series C2-R combination can be transformed into a parallel equivalent.  
>We then have something topologically the same as a pi network.

>

>The transformation affects the resistive component also. We can add a  
>1-section pi network to the output to transform the new resistance value to  
>match the load.

>

>The output capacitance of the MOSFET can be absorbed by C1 by subtracting it  
>from the design value of C1.

>

>The two parallel capacitors in the center of the pi network can be combined  
>into one by adding their values.

>

>To see how this works out in practice, I set up a 7MHz design for P=6w,  
>R=50ohm, Vcc=12V (etc). This produced the hoped-for Class E waveforms when  
>simulated (using a squarish gate drive, or significantly overdriving with a  
>since wave, is essential by the way).



>  
>I then built the design using an IRF510. Somewhat to my surprise it worked  
>pretty well, even though I used 20% tolerance capacitors in the matching  
>networks. Measured efficiency of the PA stage was 90% at 5w output (total  
>efficiency is a lot worse, since my driver stage is slurping up too much  
>power). The waveforms look OK - the voltage across the MOSFET at switching  
>times is quite small. The gate drive waveform is a not-very-square wave from  
>0 to 8v.  
>  
>I don't have a way to measure the harmonic content of the output, but it  
>looks very clean. This is consistent with the 5-element low-pass structure  
>of the matching network.  
>  
>I've written up the equations as a small C++ program; I can let people have  
>this off-list (or will post if there are any requests; it's about 100  
>lines).  
>  
>72 de ian, k3imw/6

Cecil  
KD5NWA

-----  
Date: Thu, 2 Jan 2003 14:53:38 -0800  
From: "Doug Hendricks" <ki6ds@dph.dpol.net>  
To: <qrp-1@Lehigh.EDU>  
Subject: [143839] Last 100 SideKick Kits shipped to JayBob  
Message-ID: <013501c2b2b1\$ccd594a0\$4a0b0d0a@dph.dpol.net>  
MIME-Version: 1.0  
Content-Type: text/plain;  
          charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Whew, its done. Last fall I volunteered to help out the Ft. Smith QRP Group with their main fundraiser for this year by doing the kits for the SideKick Receiver. The SideKick is the receiver portion of the SWL40+ layed out Manhattan style by Frank Roberts, VE3FA0. Dave Benson very graciously offered to allow the Ft. Smith group to kit 300 of the receivers as a fund raiser. Well, the last 100 were kitted this week, and I boxed them up to ship to JayBob today. While I was doing it, a local guy came by, and he asked if I had any new NorCal kits. I told him no, but I did have the SideKick receiver and showed it to him. He was so impressed that he bought 2 of them. One to build and learn Manhattan style building, and then one to build and really do a good job when he learned the technique. So, there are only 98 kits being shipped to Arkansas.

Guys there won't be any more produced. This is it. If you want an excellent project to learn Manhattan Building style with all the parts there (have you been following the recent thread on how much it costs to order parts in ones and twos??), plus the pc board material, strips for the pads, and a 10 page Manual. All of this for \$34 postpaid. To order send a check or money order made out to Jay Bromley for \$34 to:

Jay Bromley  
9505 Bryn Mawr Cr.  
Fort Smith, AR  
72908-9276

But, please send JayBob an email at w5jay@alltel.net before you send your money to make sure that he has a kit for you. Do it today, because when these last 98 kits are gone, that is it.

Jaybob and the boys in Arkansas put on a free QRP Forum every year in April, and it is a blast to attend. He flies in quality speakers, and the hospitality is unbelievable. A huge group of Texans actually leave their state and attend. There are usually about 150 QRPers there, and I have never missed one. Arkiecon is financed by the sale of Tuna Tin 2 kits, VE3DNL Kits, and now the SideKick Receiver. If you have attended one of these and want to help out you can do two things. One, buy a kit, and two, attend again next spring. Jim Duffey and I will be there, and I hear rumors that several others are making the trip again this year. Jay will have to give you more details. Anyway, take my advice and order the kit, it is a bargain at \$34. You will end up with a quality receiver, have a fun project, and learn a lot about Manhattan building that will help your electronics hobby immensely. Tell JayBob I sent you. Grin.

One final note. If you have a club or a group that is looking for a fun project to build together, this is an excellent choice, because you get a neat receiver that works great, and is fine addition to your shack. I think Jay has a free shipping offer if you buy 5 or more at a time. Check with him. But don't delay.

72, Doug

-----  
Date: Thu, 2 Jan 2003 17:3:6 -0600  
From: "Doc K0EVZ" <dock0evz@earthlink.net>  
To: "qrp-l reflector" <qrp-l@lehigh.edu>  
Cc: "doc k0evz earthlink" <dock0evz@earthlink.net>  
Subject: [143840] GL in FOX Hunts tonite  
Message-ID: <4120031422336920@earthlink.net>  
MIME-Version: 1.0  
Content-type: text/plain; charset=US-ASCII

Gang:

Good luck for the first winter FOX hunts tonite. Hope everyone can get into the hunts for KV2X and N0TK. Full details are found at [www.cqc.org/fox](http://www.cqc.org/fox). Fingers crossed for good propagation for everyone.

73,  
--Doc/K0EVZ

-----  
Date: Thu, 2 Jan 2003 15:13:17 -0800  
From: "N4LGH" <n4lgh@waveguide.us>  
To: "QRP-L" <qrp-l@lehigh.edu>  
Subject: [143841] Obligatory Meetings?  
Message-ID: <GNEOLGDJDOPEALHJMKLCMELNDEAA.n4lgh@waveguide.us>  
MIME-Version: 1.0  
Content-Type: text/plain;  
                charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

If you could only go to three (QRP) events this year, which other two would you go to? (FDIM is a must for me ...)

Just trying to get a feel for meetings across the country, the comments on Arkiecon made me thinks a bit.  
Tracy N4LGH

-----  
Date: Thu, 02 Jan 2003 17:24:39 -0600  
From: KD5NWA <KD5NWA@cbayona.com>  
To: ianmwilson@earthlink.net,  
                "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>  
Subject: [143842] Re: Class E design procedure  
Message-ID: <5.2.0.9.0.20030102164749.00a86e20@pop.cbayona.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"; format=flowed

Sorry, I forgot the links.

< <http://mywebpages.comcast.net/tonne/software.html> > WB6BLD website

I don't have the link for Nathan Sokal's paper with me , I'll dig it up later.

At 04:17 PM 1/2/2003, Ian Wilson wrote:

>The recent thread on Class E amplifiers sparked my interest, so I took a  
>look at some of the designs that I've seen mentioned on this list. These can  
>be simulated using a very simple switch model for the active device (an  
>attractive feature of Class E is that device characteristics are secondary).  
>I found the results rather confusing, so I stopped simulating and read the  
>great paper on Class E amplifiers by Sokal, viz.:

><http://www.netway.com/~stevec/ham/sokal2corrected.pdf>

>

>Snipped for brevity.

>72 de ian, k3imw/6

Cecil  
KD5NWA

-----  
Date: Thu, 2 Jan 2003 17:50:40 -0600  
From: Nick Kennedy <nkennedy@tcainternet.com>  
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [143843] RE: Antenna question  
Message-ID: <01C2B287.77BD02C0.nkennedy@tcainternet.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"  
Content-Transfer-Encoding: 7bit

Couple comments on the two recent balun questions--

--High SWR doesn't cause feedline radiation.

--"> Well, if there is a 10:1 SWR on the 300 ohm ribbon, there will be a 10:1 SWR on the coax too."

--That's not true, in general (above).

--As others have stated, the 4:1 would generally be useful only if you have

a well defined impedance where you connect it. With multi-band dipoles, you usually don't. The consensus these days is that a choke balun is the way to go if you are just trying to force a balance / prevent feedline radiation.

--So called "balanced" lines such as twin-lead can have unbalanced currents on them. If you don't have a balanced tuner, I think a transition to coax with a choke balun on the coax is a good way to go.

--How did we ever make any QSOs when we were kids and didn't know every antenna had to have a balun?

72--Nick, WA5BDU

--somewhat unbalanced in Arkansas

-----  
Date: Thu, 2 Jan 2003 15:52:05 -0800 (PST)  
From: Tom Popovic <ki3r@yahoo.com>  
To: kd1jv@moose.ncia.net,  
Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [143844] Re: streight key recomendation needed  
Message-ID: <20030102235205.32061.qmail@web11208.mail.yahoo.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii

The Hi-Mound is an excellent straight key. Once you have used them you will never go back to the low profile type keys.

73 God Bless Tom KI3R Port Vue Pa nr Pittsburgh

--- Steven Weber <kd1jv@moose.ncia.net> wrote:  
> The Hi-Mound HK-708 is a pretty good key for under  
> \$50.00 Morse

=====

The common good was the claim and justification of every tyranny ever established over men. Every major horror of history was committed in the name of altruistic motive... Actors change, but the course of the tragedy remains the

same.     Ayn Rand 1943

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Do you Yahoo!?

Yahoo! Mail Plus - Powerful. Affordable. Sign up now.

<http://mailplus.yahoo.com>

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End of QRP-L Digest 2788

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